PERSONNEL ADMINISTRATION

ITS PRINCIPLES AND PRACTICE

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BY
ORDWAY TEAD
AND
HENRY C. METCALF, PH. D.

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To

THE MEMORY OF

ROBERT GROSVENOR VALENTINE

A pioneer in personnel administration.

A devotee of science in the service of democracy.

"We are staggered today by the great new forces apparently adrift in the world. These forces become manageable before the attack of the scientific mind humanly purposed."

R. G. V.

PREFACE TO SECOND EDITION

In undertaking to prepare this second edition, we found ourselves faced with the fact that the record of accomplishment in the various fields of personnel activity since 1920 could easily fill a volume four times the size of the first edition.

Many methods which at that time we believed should be introduced have now received wide endorsement and adoption. The progress of events has confirmed and strengthened the position we took on a great variety of points. Hence, we have felt justified in continuing to hold to our policy of describing typical procedures while also calling attention to experimental proposals.

At least half the value of this text in the opinion of many has proved to be in the point of view which it has consistently set forth and applied to practical questions. Here again the trend of opinion has moved more strongly than ever into harmony with our underlying philosophical position. This has emboldened us to try to clarify it further in this edition and apply it more thoroughly to all the moot problems having a personnel aspect. Today it needs no apology to maintain the thesis that in industry as in the rest of life individuals are not means to the ends of other individuals. Each individual is an end in himself. His personality is unique, significant, and precious. His personality develops best as he has opportunity for self-direction, for the assumption of responsibility, and for free association in enterprises in the control of which he shares. Our civilization stands or falls as its activities do or do not contribute to developing free-growing and happy persons. Our industrial life justifies itself to the degree that it contributes positively to a sound and progressive civilization.

In order to keep this edition down to substantially the same length as the first, much has been omitted for which the careful student will have to look in many of the recent special books dealing intensively with one or another aspect of the whole subject. We have retained our original purpose of presenting

a balanced exposition of point of view and of practice in the field of personnel administration as a whole.

We are indebted to Professor David R. Craig, of the University of Pittsburgh, for special work in the revision of the chapter on labor turnover. Throughout the revision we have, of course, drawn on many sources, most of which are acknowledged in footnotes. We have not, however, retained such extensive selected references at the end of chapters as were used in the first edition. The selection here has been governed by the public accessibility of the material referred to.

So much valuable material in this field appears today in periodicals, proceedings, and pamphlets, that the conscientious student should really have this material coming regularly to his desk. In Appendix B we suggest some of the best sources which are purposely not exhaustively referred to in the separate chapter references.

THE AUTHORS.

NEW YORK, N. Y.
July, 1, 1926.

PREFACE TO FIRST EDITION

The purpose of this book is to set forth the principles and the best prevailing practice in the field of the administration of human relations in industry. It is addressed to employers, personnel executives, and employment managers, and to students of personnel administration whether they are in schools of business administration or already in industry in some executive capacity. We hope that it will have value, also, for all—managers, workers, consumers—who are interested to advance right human relations in industry, and to secure a productivity which is due to willing human cooperation, interest, and creative power.

The field of administrative activity covered by the book includes all those efforts usually included in personnel management; employment, health and safety, training, personnel research, service features, and joint relations. We seek, also, to show the relation of the personnel problems of each corporation to those of its industry as a whole, by considering in conclusion the activities of employers' associations and the dealings which they may have with organizations of workers on a district or national scale.

We may be questioned for our temerity in affirming "principles" and "standard practice" thus early in the development of a relatively new field of specialized effort. These principles grow out of modern knowledge of human nature and its constituent elements—not out of transient industrial conditions. Administrators are dealing with human beings—personalities whose inherent tendencies and impulses, whose characteristic reactions, whose hopes and aspirations are being revealed by the study of human behavior. Determination as to how industrial procedure may be best adapted to this human nature which is the animating power of industry, is therefore conditioned primarily by our knowledge of that nature, and a knowledge of the critical points of its suppression, conflict, and maladjustment in industry.

On the whole, it is also true that the principles underlying successful practice in the administration of personnel activities apply independently of the larger economic issues which, how-

ever, cannot be wholly excluded from a study of this kind. Under any or all systems of industrial ownership, the problem of human relationship and adjustment between managers and managed, and among workers remains, and it remains as substantially the same problem. The great majority of problems—selection, advancement, job analysis, pay adjustments—grow necessarily out of a machine era with its subdivision of labor and its separation of executive from manual worker. For this reason we are hopeful that our principles, if valid, are valid for different industries, different localities, even different industrial systems, and for other than industrial organizations.

We have been at pains to use as illustrations procedures which have proved successful in one or more plants in recent years; but we are under no illusion that practices useful in one situation are necessarily useful in another. The reader should constantly bear in mind, for example, that methods which apply in a large plant are not necessarily the best in a small plant; that city factory conditions are different from country factory conditions; that the situation where unskilled, foreign-born workers predominate is in certain respects unlike that where native-born workers are in the majority. Each organization's problems must be analyzed separately, and conclusions must be reached on the basis of sound thinking about principles and critical study of all suggested methods.

There are no panaceas or cure-alls in this field. The size of this book and the variety of the topics treated will give evidence of this convincingly, if any proof is needed. There is a bewildering variety of methods, practices, and activities which must all be simultaneously carried forward if personnel administration is to be effective. This does not mean, however, that they should all be *started* at once. They should be developed as the need for them is felt and as they justify their existence. "Prove all things and hold fast to that which is good."

There has been in some organizations an unfortunate tendency to overdevelop some one activity which was of special interest to some executive; but the time is past when hobbies or pet ideas should be allowed to develop at the expense of a rounded human relations policy. The surest index of a personnel executive's grasp of his problem is his ability to keep a sane proportion in the unfolding of his different administrative tasks.

For all these reasons our discussion of successful practices has taken the form of illustrations of our conclusions rather than of numerous examples which might be uncritically copied. This book is aimed to be a helpful manual; but we cannot repeat too emphatically that every individual application of a principle has to be made in its own way in the light of the local circumstances. Hence, we urge that the book be read quite as much to absorb a certain helpful point of view toward human relations as to discover specific next steps.

To the extent that the reader grasps and applies the liberal, scientific, and human points of view which animate this volume, he will find that more ways and means will suggest themselves for use under his own conditions than we could enumerate in a much larger volume. "Tell a man how to do a thing, and he will not know how do do it," said a very wise educator; "show him how by doing it before his eyes, and he still will not know how to do it. The only way for him really to learn is by doing it himself."

Five years from now a more scientifically accurate and informing text undoubtedly could be written on this subject than is now possible. Presumably, more standards of procedure will have become clear; but the need for a volume to state the problem, define its limits, and suggest the current developments, is immediately urgent. Already, more firms see the need for specialized executive direction in personnel work than can find executives competent to assume it. Our volume is therefore offered at this time with a full consciousness of its limitations, but with the hope that it may help to establish the executive direction of human relations on a professional plane where a high ethical obligation of service shall be the controlling motive, and humanly scientific standards become the criterion of wise practice.

Since a selection of the topics to be treated was necessary in any case, we have chosen those which seemed to us vital, and have brought them into an arrangement and grouping which have a certain logic from the administrator's point of view; although we recognize that any functional grouping is arbitrary at best.

Needless to say, in a volume of this character the element of originality cannot be great; and we have tried to acknowledge throughout the text the sources of specific suggestions. But inevitably, since our indebtedness extends in many directions, all personal acknowledgments have not been made, and we can

best express our very real gratitude to our unmentioned helpers by insisting that we regard this book as theirs as well as ours.

We recognize especially, however, the helpful services of our former colleagues in the Bureau of Industrial Research at every stage of the volume's preparation, the beneficial criticism of managers for whom we have acted as consultants, and the cumulative suggestions of successive classes with whom we have studied this subject from every angle.

To Robert G. Valentine, to whose memory we dedicate the book, we owe a peculiar debt of inspiration and suggestion. Although Mr. Valentine died in 1916 before any of this material was in its present form, he exercised a determining influence in the direction taken by the text in the methods proposed no less than in the underlying point of view.

THE AUTHORS.

March 1, 1920.

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PERSONNEL ADMINISTRATION
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CHAPTER I

THE FIELD OF PERSONNEL ADMINISTRATION

The necessity of centering attention in industry upon the effectiveness with which human labor is applied has been the cause of a shift in managerial emphasis, which is still in its early stages. The industrial world is only a little beyond the threshold of a new evaluation of administrative ability in terms of effectiveness in directing people, and in terms of the application of scientific methods to using human energy. A new focus in administration is the human element. The new center of attention and solicitude is the individual person, the worker. This shift comes about fundamentally because the enlistment of human cooperation, of the interest and good will of the workers, has become crucial in the conduct of economic organizations.

The scientific approach to the human aspects of an effective production policy is through expert and specialized administration, which means, in organizations of more than a few scores of people, through the utilization of a separate staff department in management. The whole tendency in recent years is in the direction of a new science and a newly appreciated art—the science and art of personnel administration. To define and study this science is a necessary project if industrial administration is to be sound. To have insight into this art and skill in its use is imperative if satisfactory industrial relations are to be maintained. This book is devoted to a statement of the elements of this science so far as they have been discovered, and of the conclusions arrived at by those who have applied this art intelligently.

To a gratifying and increasing extent managers today realize how large a share they must shoulder for the responsibility which

is upon us all for the present industrial confusion and conflict. Their share is large, because they have been in a position of leadership and control; they have often profited largely by their own success; and they have until recently been slow to see how much could be done by an imaginative and adventuresome handling of their relations with employees. However, because managers in thousands of companies are now not owners but are in a salaried position of almost professional responsibility for effective operation, they find it advisable to take a more humane and scientific view of methods of dealing with employees. For the fact is that the business organizations which have been conspicuously successful in recent years are those which have conducted their labor relations in a modern and progressive fashion. They have been those companies in which some one outstanding executive, either owner or manager, has led the way patiently and with vision, and introduced personnel methods along the lines which this book describes.

It would be untrue to proclaim salvation for the modern industrial community solely through good management. The problem is not so simple. But the conspicuous part which wise administration can play in the upbuilding of a more stable and equitable industrial order has been clearly shown in the last decade by the experiences of a large number of corporations. It is now widely recognized as the task of managers to possess themselves of a point of view, purposes, and methods which give promise of extending widely the beneficial results which these companies have already secured.

What, then, is the nature, field, and work of this new branch of administration?

A formal definition is easily phrased, but to convey its full meaning requires elaboration.

Definitions.—*Personnel administration is the planning, supervision, direction, and coordination of those activities of an organization which contribute to realizing the defined ends of that organization with a minimum of human effort and friction, with an animating spirit of cooperation, and with proper regard for the genuine well-being of all members of the organization.*

The phrase "personnel department" indicates the staff department which is charged with the executive and operating duties which are agreed to fall under the personnel designation. Other equivalent terms are used in practice, such as "industrial

relations department," "labor department," "employees' service department," etc.; but there is today increasing agreement upon the terminology made use of in this book.

The *personnel manager* is, if properly termed, the staff executive possessed of equal rank with other staff officials in handling matters of general administrative policy, under whom the operating work of employment, health and safety, training, etc. is carried on. The *employment manager* is the assistant of the personnel manager, in charge of employing. The *training director* is the subordinate in charge of training. The *welfare* or *service manager* is under the personnel executive in charge of such activities as recreation, lunchrooms, etc. All these activities are operated through divisions, bureaus, or sections which together go to make up the operating side of the personnel department's work. A company might have an employment manager, safety engineer, or training director, without necessarily having a real staff personnel manager. It is therefore important not to be misled by the title of the executive or of his department, since the range of responsibility is the factor which really determines his status in the management.

Several aspects of the above definition require further emphasis; namely, the fact that personnel work is managerial in character; that certain specific ends or objectives must be in view if this work is to be done most effectively; that no discussion of the subject of personnel administration can be fundamental which does not hold in view some basis of judgment which derives from a somewhat definite conception of the meaning and nature of human well-being.

Personnel Work a Managerial Function.—Personnel administration is a major staff executive responsibility. Any functional analysis of industrial and mercantile organizations has for a long time recognized production, finance, and sales as major functions. In recent years managers and students of administration have increasingly agreed that special consideration of the work of securing the best application of human energy, intelligence, and the good will of the people employed in all three of these departments is itself a separate function, important enough to be a fourth staff function.

This does not imply that the operation of those other departments is from the operating point of view interfered with by the personnel department. The actual day-to-day work within

the operating departments under superintendents and foremen is handled in the usual way. The personnel department on its side has certain operating responsibilities in the fields of employing, training, medical and safety work, research and "service." But over and above its operating activities are its consulting and advisory efforts with factory or store managers, with foremen, with the chief executive, and with the operating executive committee of the corporation. These are the managerial people who come constantly into directive contact with the manual workers; and they are the ones who must translate into action the personnel policy of the organization. How they do this can be affected for the better by the personnel staff and by its educational work throughout the office and shop.

The present conception of effective personnel work means, in short, that certain operating procedures are expertly handled. It means that all executives are assisted in order to assure that their own handling of people is as skilful as possible. Even more, it assures that in the councils of management, executive decisions on all questions affected with a personnel interest are made with just as full consideration and weight given to the personnel point of view as to every other. The personnel manager is the staff head of an operating department which serves all the other departments. He is the executive who, on an equal footing with other staff managers, joins in coordinating general policies and in maintaining a proper balance among the claims of all the staff heads in reaching decisions on new policies.

It may be objected, however, that in almost all organizations some major executive is already in control of the determination of labor policies. It is true, even where no separate personnel function is explicitly recognized, that personnel policies are ultimately decided by a staff official, usually the general manager or president. It is the lesson of all recent developments in industrial and mercantile organizations that personnel administration is inherently a separate major function, for which special ability, peculiar aptitude, and expert training are imperative. The argument, however, is not against having existing major executives assume direction over the expert administration of this function, especially in small plants. Rather, the fact is emphasized that, where high executives have to divide their time between responsibility for some other major function and personnel, they should fully realize what vital duties they have

in this field, what a distinctive point of view is required, and what an elaborate technique should be applied, if they are to perform this work successfully.

The Test of Success in Personnel Work.—If, then, personnel work is managerial in character and scope, the test of its success is the same as that for all managerial work; that is, its demonstrated or demonstrable ability to result in a more effective and economical application of labor to production, or, speaking more broadly, to forward all the avowed aims of the corporation. In other words, this executive department is fundamentally as concerned as any other in forwarding production. The only difference is—and it is a difference of great importance—that its point of view as to how production can best be furthered will be a special one. The personnel manager approaches the direction of production from the point of view of engaging the workers' interest in their work, and building up a corporate morale. He comes to his task as an expert in the vitalizing of human activity and human association. Therefore, at times, he may be unable to subscribe to policies of immediate expediency dictated by short-sighted motives of selfishness or quick-profit aggrandizement. His motive as a professional expert is not exclusively that of profit. His objective includes following out his professional standards of expert service and offering advice as scientifically and humanly sound as possible. His presence in the executive organization is calculated to assure that at least one voice in its councils is speaking with full competency on the human aspect of production problems, and that, before executive action is taken, full and adequate weight has been given to all psychological and human factors.

One reason for stressing the managerial significance of this work is to establish at once the point that expenditures and activities undertaken in the field of personnel administration must, in large part, be justified in the same way as all other managerial expenses and activities. The question which managers may fairly put is: Does any proposed activity in the field of personnel further, in reasonably direct ways, the ends of truly efficient production at reasonable costs? There is, of course, no arbitrary line which it is possible to draw between *company* activities and *community* activities, between legitimate *personnel* procedure and superfluous *welfare* proposals. The closer the corporation confines its activities and expenses to

those which are justified in the eyes of management and men alike, as practices essentially contributing to economical production, the more wholesome and sound will its personnel policy tend to be.

Permission has been given to quote the following from a confidential report on personnel work in a related group of department stores:

> It has been found that the personnel manager in department stores can demonstrate the money value of his work. The profit in personnel purchasing can reasonably be said to be savings beneath the planned payroll expenditure which the department is able to effect without affecting adversely results in sales and non-selling department efficiency.
>
> The principal means employed to measure the effectiveness of personnel work are:
>
> 1. Payroll expense—comparisons of actual with budget.
> 2. Daily sales per salesperson—in terms of dollars and in terms of number of sales.
> 3. Labor turnover records—one firm in a year had those leaving interview the employment office, and 500 were again readjusted to employment in one year's time.
> 4. Error record decreased.
> 5. Hospital records.

The Relation of Personnel to Other Executives.—Just what the relationship of the personnel manager should be to the other staff executives, it is impossible to say absolutely for all companies. A great variety of arrangements is in actual effect in companies of different size and geographical distribution. Also, there probably is no one best way by which the proper integration is achieved in the work of the staff heads.[1] This subject is elaborated in Chap. XXV.

Three or four representative types of organized relationships however, do merit attention here.[2] (1) There is the plan under which the personnel executive is advisory to the chief executive and is a member of the operating executive committee. (2) There is the plan under which the personnel executive and the production executive or plant superintendent are on the same footing, both reporting to the head executive. (3) There is the

[1] See in this connection the study of LOVETT, R. F., "Present Tendencies in Personnel Practice," *Industrial Management*, June, 1923.

[2] See the presentation in chart form of several alternate types of personnel organization and relationships in Chap. XXV.

plan used most largely in small companies of having the chief executive be the head personnel executive by devoting the necessary time to direction of these matters. (4) There is the plan of having no real personnel head, but having the division chiefs over employment, health, safety, training, etc. report to the plant superintendent or production manager.

Of these four plans there is least to be said on behalf of the fourth. The second plan has developed in practice a certain amount of divided responsibility. The first is gaining in favor and use in companies where executive functionalizing is warranted by the size of the organization. The third plan tends to be used in family concerns and smaller companies.

In department store organizations two typical arrangements illustrative of the fourth and second of the above plans are as follows:

1. The personnel department is under the store superintendent who in turn reports to the general manager. This store superintendent is usually also in charge of maintenance and operating work.
2. The personnel department is directly under the general manager in a position to coordinate with the store superintendent.

These two policies are found to be not greatly different in actual effect. Where, however, the store superintendent is responsible for other items as well as personnel—which is the case in the majority of the stores, he should be experienced in the theory and practice of personnel work sufficiently to be able to give the necessary guidance to a trained personnel assistant.[1]

The Functional Basis for Personnel Work.—As the definition suggests, personnel administration is not the peculiar adjunct of industrial or mercantile management. Broadly viewed, it is a vital half of the administration and management of *any* organization, wherever there exists the relationship of director to directed, of manager to managed. There is in the conduct of every organization not only the aspect of process, technology, material, but there is also the aspect of human attention, interest, will, cooperation, morale. The two aspects are by no means inseparable, and there is a wide hinterland where they intermingle closely. The fact that administration is not yet viewed in all types of organizations as embracing these two complementary halves does not alter the fact. Implicitly, every

[1] Quoted from a confidential report on personnel work in a related group of department stores.

enterprise, be it hospital, bank, railroad, steamship, municipal department, university, or what not, has these two aspects to its directive problem. In all organizations of any size (*i.e.*, where there are more people and technical problems to look after than one executive can conveniently know and deal with), the failure to make special managerial provision for the work of personnel direction is bound to mean difficulty in enlisting the best efforts of the workers.

In short, the problem of personnel administration is not solely industrial, it is *organizational* which puts this function, theoretically at least, in a much sounder position as respects its inherent and widespread utility.

It is in industry, however, that the need of differentiating managerial duties has first been recognized. And the practical exigencies of large-scale industry, more or less simultaneously with the reflections and studies of those interested in a science of administration, have in industry brought considerable activity in the establishment of managerial departments of personnel. The practical difficulty to date has been that while a number of corporations have seen the wisdom of functionalized treatment of human problems they have been slow to delegate to equipped executives adequate authority in the personnel field. They have set up employment offices and instituted safety and educational work; but they have all too often failed to specify a major executive in charge over *all* such activities. One reason for this has been that there have been relatively few executives fitted by special training to direct the multifarious activities now embraced under personnel administration. Hence this department of administration still remains in many plants in the hands of the head executive, who determines and directs personnel policy as best he can in the fragments of time which he can devote to it.

It is important to call attention to this discrepancy between the admittedly sound administrative theory, which would place a trained personnel manager in the top councils of every organization of over two or three hundred workers, and the current practice of most enterprises where trained personnel workers are used but are not allowed any substantial voice in fixing fundamental policies. There is every reason to believe, however, that this situation will change as more and more people of executive caliber are specially equipped to handle the personnel work.

The number of companies large enough to use the services of such a person to advantage is constantly increasing.

The Defined Ends of the Organization.—In suggesting in the definition that personnel work must contribute to realizing the organization's defined ends, a question of profound import is raised, which can be treated here only in the most summary fashion. What are the defined ends of economic organizations? If one says flatly that an enterprise is run *solely* for profit (and that seems to be the avowed fact regarding many enterprises), then one has to recognize that to enlist the workers in behalf of this purpose may prove a mammoth task, unless the workers are to become in some measure profit-sharers. If, however, a less absolute position is taken, and it is agreed that an enterprise justifies itself fundamentally by its service to society in providing for wants; and that a reasonable profit is but the reward of risk, the source of new capital, and the measure of the utility of the enterprise; and if, finally, the company is willing to keep its profits down to this "reasonable" point, it seems that such a company will be able to go before its workers with much greater likelihood of securing from them a genuine adherence to its purposes.

The truth is that many executives have never seriously asked themselves what the objectives of their company are. If, in the light of experience, it should prove true that there are certain ends in view in typical corporations, which employees can be brought to share and others which they cannot, that increases the personnel executive's responsibility for attempting a clarifying of the thoughts of owners and managers, in order that they may see if what they want out of their organization is something which they can reasonably expect the employees to want also and to work for with a will. This clarifying of objectives can be a service of fundamental value in many companies where, under present conditions, the objectives are confused or narrowly selfish; and where, in consequence, the likelihood of getting the employees' cooperation is slight. Under such conditions, all the many personnel activities can be conducted almost in vain. They become vitalized and valuable only when objectives which can humanly be expected to interest employees are adopted.

Reducing Effort and Friction.—"With a minimum of human effort and friction," in the above definition, implies conscious study of the methods of applying human energy to machinery and materials, and of the methods which create good will, under-

standing, morale, and mutual confidence. The personnel administrator has, in conjunction with the technical production manager, the job of seeing that the energy of workers is applied with the greatest effect and economy. Their method of assuring this will be largely by the constant use of the type of job analysis which we shall later discuss.

Another duty of the personnel executive, in this direction, is to reduce personal and group maladjustments, grievances, and frictions. He must help to create formal machinery to treat with these difficulties; he must help to invest the whole plant with an atmosphere in which animosity cannot thrive; he will do all in his power to assure that the terms and conditions of employment are such as to occasion a minimum of dissatisfaction.

A Spirit of Cooperation.—Our definition further calls for fostering an "animating spirit of cooperation." A real distinction is to be observed here between passive and active consent, between enforced and voluntary cooperation. Industry has long been familiar with the quality of work and the prevailing mood where a passive and reluctant attitude prevails. No far-seeing executive can escape the conclusion that, under present economic conditions, it is the aggressive and eager cooperation of workers which is required; and the underlying conditions which will assure this must be scientifically sought. It can be said flatly that this more positive cooperative attitude is springing up today in industry only where personnel work of a high grade is being done.

The Well-being of the Personnel.—"With proper regard for the genuine well-being of all members of the organization" is the clause of our definition which more than any other, perhaps, distinguishes this branch of management. Upon this department rests the special duty of knowing all there is to know about people, about their physical and mental constitution, about human nature. This knowledge, in so far as it is available, is organized in the sciences of physiology and psychology. The administrator must be familiar with essential principles in both fields. But since the science of psychology is the less familiar and opens up a point of view toward personnel problems which it will be particularly useful to retain throughout this study, we shall present the outlines of a psychological approach in the next chapter.

More than a knowledge of current psychological scholarship, of course, is necessary to answer questions as to the nature of

human well-being. To attempt such answers brings one into the fields of philosophy and religion, where questions of value and significance are uppermost. What psychology can and sometime will do is to throw important light on schemes of value and estimates of significance in human affairs as offered by philosophy and religion. Such a psychological judgment will be based upon realistic knowledge of the limitations, the average expectations, and the potentialities of human nature and behavior.

No conception of human well-being will have vitality which does not take cognizance of the main trends of human nature as it manifests itself in a temperate climate in the western hemisphere.

Conceptions of human well-being, in short, must be dynamic, evolving, relative, psychologically self-consistent; and, finally, they must be democratic in temper, in the sense of understanding how interdependent and social the fact of well-being necessarily is. Not democratic in any interpretation of that word which connotes a leveling down, flattening out, or standardizing process in personalities; but in the sense of making provision for the growth and qualitative enhancement of life for more and more people who natively have the desire to grow, if opportunity is not too obstructed.

The Bearing of the Problem of Ownership on Personnel Work. Since the principles of personnel administration largely apply wherever there is a relation of manager and managed, it is important to understand that the problem exists, at least in many of its aspects, *independently of the problem of ownership in industry.* Wherever title to the ownership may reside, a majority of the problems of directing the personnel remain the same.

In some quarters there is a disposition to believe that a change in the title of ownership—for example, to the government or even to employees as stockholders—could of itself "solve the labor problem." In our view, this is fallacious, *since a considerable part of the labor problem is, from the point of view of the science of management, to establish a satisfactory and effective working entente between managers and men.* This relationship of director to directed creates problems in human contact, association, and organization which are inherent, permanent, and virtually universal. It should be remembered that, within governmental departments and bureaus of all sorts, there exist a great many personnel problems identical with those treated in this book.

On the other hand, the attitude of manual workers toward their work is undeniably conditioned by a more or less conscious doubt about the objectives which control present ownership arrangements. It does seem to have been true that, under private, absentee, corporate ownership, the attitude of workers has never yet been brought to a point of willing and hearty cooperation and enthusiastic morale. To that extent personnel work at present labors under one serious limitation; and it should not be criticized for not being able to do the impossible. Whether or not, under the present scheme of ownership of economic resources and equipment, methods can be devised which will give rise to objectives of a broader, more humane, and more democratic character than those typical today, it is as yet too early to say with certainty. Yet there is a possibility that, growing out of existing experiments in certain industries and corporations, some plan of stock-ownership or other form of partnership with employees and customers may yield suggestions for modifications in the corporate form under which genuine morale and interest in work can be secured.

The point remains, however, that there exists the problem of managerial technique, many aspects of which are separable from the problems of ownership, and eminently in need of scientific attack. This would still be true, even if workers elected their own foremen and superintendents.

The Permanence of Personnel Work.—Question sometimes arises about the permanency of personnel work in industry. It can be answered unequivocally by saying that not only are personnel departments increasing in this country in number and effectiveness, but that more and more general managers in plants, stores, offices, etc., where a separate personnel department does not seem warranted, are concerning themselves in an intelligent way with the handling of their personnel problems.[1] In large corporations, where the personnel department is working

[1] The growing literature on personnel work in different industries is indicated by the following list of books:

HAMILTON, W. I., "Employer-Employee Relations in Hotels."

HAYWARD, W. S. and WHITE, PERCIVAL, "Chain Stores: Their Management and Operation," Chaps. XII-XV.

"Personnel Management on the Railroads," Metropolitan Life Insurance Company, Policy Holders' Service Bureau.

"The Merchant's Manual," published under the auspices of the National Retail Dry Goods Association.

smoothly, there is an increasing disposition for vice-presidents to be specially designated to handle this work, and for boards of directors to spend a substantial amount of time deliberating on such questions of major personnel policy as stock-purchase plans for employees, shop committees or collective bargaining with labor unions, and morale-building features of various sorts. The tendency is clearly in the direction of dignifying the determination of personnel policy by having the highest executives devote some of their best time to it. As a result, more varied and significant experiments in industrial relations are in process today than ever before in the country's history. Also, the principles and methods of personnel work have already been incorporated, to a certain extent, into the operation of governmental departments, city, state, and nation.[1]

Motives in Personnel Work.—It is said by some, as if to detract from the value of personnel work, that it is only done because it pays. Of course personnel work should pay, in the sense of contributing to forwarding the corporate ends. If it is meant that workers are deliberately exploited to realize ends which they do not really share, that is a prostitution of personnel work, the seemingly paying effects of which are likely to be temporary. Good personnel work is educational for managers and rank and file; and one of its educational influences is showing itself clearly to be a broadening of the notion of corporate ends held by all concerned. Personnel work, properly executed, is a paying proposition for companies. At the same time, it is a liberalizing influence, which helps people to realize that the purpose of industry is more than amassing wealth; that the quality of satisfaction derived from the activities of one's working hours is as significant of its value as the cash reward. And any managerial procedure which will help as an educative force in pointing out worthwhile objectives and satisfying outlets of energy in and through work is a beneficial procedure.

More serious, it appears, is the criticism that personnel work is inaugurated to make the introduction of organized labor's activities unlikely in any immediate future. This has undoubtedly been present as a motive for introducing some

[1] See in this connection the following books:
Proctor, A. W., "Principles of Public Personnel Administration."
Mayers, L., "The Federal Service."
Lewis, E. E., "Personnel Problems of the Teaching Staff."

personnel work. Without wishing to raise here the whole complex issue of the relation of organized labor and its function to the work of the personnel department and its function, it can be agreed that personnel work has unquestionably in some cases lessened the likelihood of immediate aggressive organizing campaigns by the unions; and has in other cases weakened the hold that unions already had on groups of workers. No doubt more of such influences will be traceable in the next few years because of the fact that an increasing number of managers will come to see the advantage to them of supplying terms of employment, and even of negotiation, as advantageous as, or more advantageous than, those immediately procurable for the workers by their unions.

It does not seem, however, that the fact that this is so and will continue to be so can be construed as an argument against personnel work. It is true that managers never can do everything for the workers through managerial initiative that the workers can do for themselves through their own initiative and exertions. But what managers can and will do is surely of benefit in raising the standard of well-being among the entire working force. If the workers are slow to see that in the last analysis their own efforts are the basic means to their advancement and to the preservation of their self-respect and personal integrity, the managers cannot be blamed. Such recognition of the value of autonomous organization has been tardy enough among manual workers even where personnel work has been unheard of.

There are a few companies where, although they are necessarily concerned to secure a profit as a measure of their utility and as assurance of their future development, major attention is being paid to perfecting the organization as an instrument of production and public service. These companies have succeeded in remaining free from the control of exclusively financial interests; and, recognizing that management is an expert professional function quite separable from the function of promoting or investing, they are seeking to perfect their administrative technique in personnel as in other branches of management. Obviously, in such cases, the professional spirit has most free play, and the application of science and art to organization can be made most readily, since every experiment, even before it is made, does not need to have its practical utility and profit-yielding possibilities completely demonstrated.

It is in companies of this latter type that the most significant advances in the personnel field have first been made and virtually all the experimental work has been done. Not a few of the suggestions which this book will offer have been drawn from the efforts of those pioneer concerns. We feel free to draw upon their experience, because practically all of their new efforts have slowly but surely been borrowed and adapted by other less adventurous firms. After all, what is needed is not alone a rehearsal of widely successful past experience in this field, but also a clear indication of the tendencies of development in the next quarter century.

A Professional Standard.—Perhaps the most substantial value in the pioneering work of these companies is the impetus it has given to establishing personnel administration on a professional basis. Indeed, it is upon the extension of this professional spirit throughout the entire field of management that the future security, integrity, and effectiveness of personnel work depend. For a professional attitude which is common throughout management means a readier understanding and a common ground for cooperation among all staff executives. The essence of the professional spirit is presumably its solicitude for maintaining its professional standards. The cornerstone upon which all professional standards rest is a motive of disinterested service for the common good, an attitude in which attention is fastened not upon the reward but upon the thoroughness and scientific character of the workmanship and the utility of the work done.

The definition of personnel management given and the subsequent discussion of it should suggest the standards which are here at stake. This profession is concerned to secure the maximum necessary production with a minimum of effort and friction, and with proper regard for the health and happiness of the great body of workers, both manual and mental.

If the student will examine, as the rest of this book attempts candidly to examine, the implications in theory and practice of such a professional claim, any conclusions which have been reached may be left to take care of themselves. The reader inevitably will come to conclusions of his own, which, in the light of his experience, may or may not square with these. They will be arrived at, however, in a professional spirit; and thus he will come independently, as each one should, to an adequate grasp of the science and art of administering human relations. Pos-

sibly, too, while developing his own methods of work he will come to agree that, fundamentally, he desires to secure a wholesome adjustment among the following objectives, which seemingly require to be striven for in economic activities: necessary *productivity;* more and more *personalities* of distinctive quality; reasonable *profit,*[1] and conditions assuring the *perpetuity* of the race.

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[1] Profit is here meant not in the sense of excessive earnings for private investors but rather in the sense of an earning power sufficient to meet all costs, including a fair rental charge for all capital, plus amounts for the replacement of worn-out equipment and for the legitimate extension of the enterprise.

CHAPTER II

HUMAN VALUES IN INDUSTRY

Personnel administration has already been defined as the work of directing human relations with an eye to productivity, good will, and positive regard for the quality of the life of all the workers—regard for human well-being. Profits and stability of working force do, of course, to a considerable extent offer a measure of the success of efforts toward productivity and good will; but human well-being needs more explicit definition and measure. If managers in the field of industrial relations are to work to best effect, they must have as definite an idea as possible of the constituent elements in human well-being; they must recognize the qualities in individuals which are native, fundamental, socially useful, and worthy of fuller release and development than they now enjoy.

In a word, all who direct people should know all they can about human nature and about the human values in life which such knowledge suggests. In the absence of this knowledge, or in the absence of its close application to economic problems, industry has pursued its own way with standards of value and with purposes which have been partial and inadequate. Many of these purposes have not squared with what is known today about the real desires, tendencies, and motives of the great majority of people. There is good reason to believe that modern managers, by taking time really to understand the true character of human beings, are finding profound suggestions as to the meaning of human well-being and as to the purposes which industry must hold as central for its most successful operation.

Human Characteristics Unchanging.—The saying "you can't change human nature" has its important element of truth in which lies a real basis of hope. For it means that all of us, regardless of clothes, vocabulary, social standing, language, and color, need and desire the same fundamental things in life, and possess the same basic characteristics. The demands which

others will make upon life may be gauged by the demands which we make, not necessarily in the details but in essence. Home, family, prestige, security—these are as significant and influential in controlling the life of the humblest night watchman as in controlling the life of the president of the corporation.

Moreover, the sameness of human nature means that the same kinds of appeals and methods tend to elicit from different groups the same kinds of response. Without that assurance of similar characteristics and similar mental habits, education would be impossible; all types of association would be capricious; every individual would be a law unto himself.

Because in essentials, people are moved by the same desires and satisfied with the same activities, we can be reasonably confident that ideas, purposes, and aspirations which are found to have appeal for limited groups will probably find a universally wide appeal, if only human nature has a chance. Permanence of the characteristics in the human equipment, however, does not argue against the possibility of improvement in individual or social life. It argues rather for a clear understanding of those characteristics and desires which seem to possess the most constructive force, and for a conscious effort to nurture them.

Bodily Integrity.—No study of human characteristics can proceed far unless it is grounded in a knowledge of the influence of bodily conditions upon life and attitude. Behavior, says the biologist, is a function of structure. It is no less a function of the health of the organism. Much of the variation in the responses of people to similar situations is due to differences of physical condition. Low vitality, under-nourishment, continued over-eating and under-exercising, bad liver and bad lungs—all modify the individual's behavior. Until managers are prepared to face the problem of their workers' attitude first in terms of bodily integrity they will meet only discouragement in trying to foster qualities which cannot be expected to manifest themselves in the absence of good health.

Chronic fatigue, worry, an anemic condition, a rheumatic condition, or any of a dozen other functional or nervous disorders, even in an incipient state, can detract so markedly from the individual's healthy-mindedness that interest in work, or any other enthusiasm, is out of the question. The fatal conjunction of "tiredness and temper" cannot be called too forcefully to the realization of managers.

"The basis of all national progress, whether industrial or social, is the health and physical efficiency of the people"; and the need and desire for individual health and free-flowing vitality is native to all. The soundness of any procedure or of any purpose in industry or in life depends upon its ability to square itself first with the innate demand for physical wholeness.

Love of Family.—Coupled closely with the desire to assure one's own life and safety is a desire more or less urgent to carry on one's life through children. This impulse, of course, expresses itself in love of parents, wife, and children, and in a yearning to give them the best possible opportunities and enjoyments. Until managers realize that this love is just as strong and fine and socially beneficient in working-class families as in their own, and that it impels workers in the same way, they will misread many facts about employee behavior.[1] The passionate desire to see families not merely supported but "getting on," to see children have larger opportunities than parents had, helps to explain much effort and sacrifice.

Indeed, a combination of these demands for self and family progress largely explains why the struggle for higher wages, for a progressively higher standard of living, and especially for security of livelihood is so insistent. In fact, failure to satisfy this demand for security of livelihood is at the bottom of the bitterest protests of the workers against current industrial practices.

The Creative Impulse.—In modern industrial life another native tendency has been too largely deprived of expression. That tendency has been variously spoken of as the "creative impulse," "the instinct of workmanship," "the tendency toward contrivance." The fact behind these names is of tremendous importance. Individuals are only alive when they act, when they do something. To live is to desire and to strive to realize one's desires. People, especially in temperate climates, prefer activity to idleness; they prefer activity to which use is imputed or in the accomplishment of which honor and approbation are gained. They prefer activity where some tangible evidence of achievement remains. People universally have a passionate desire to be recognized by those around them as counting for something; and they know that they count for something only

[1] For a fuller treatment than is possible here of the influence in industrial life of the native human characteristics, see TEAD, ORDWAY, "Instincts in Industry."

as they act. The action may take queer, perverted forms, because no constructive channels seem to offer; but, fundamentally, the action which assures the greatest self-satisfaction and group approval is action which is in some way conceived to be creative.

This desire, manifesting itself initially in activity directed to building, manipulating, and contriving, is deep-rooted in human nature; and failure to find a channel for its expression may result in serious difficulties, since any thoroughgoing and permanent suppression of basic natural tendencies is known to be potentially dangerous to the individual. There may be, where repression has been long and intense, varied manifestations of suppressed desire. The creative desire may work itself out in destructive ways; in trivial, useless ways; or in channels and "movements" that appear not to be in line with the individual's natural interests. That it will work out in some way is known; and the responsibility is upon managers to find in industrial employments satisfying outlets adapted to the differing aptitudes and capacities of their employees.

The likelihood of repression and the fact of its possible bad effects point again to the importance of identifying the basic human tendencies and studying to provide them a wholesome medium of expression. For the sex instinct and the desire to accumulate and to glory in possession are also native; and it is essential to wise social and industrial policy to discover the degree to which the energy released by these impulses can be used and transferred, rather than simply smothered and turned in upon itself. Each of these tendencies contributes to the integrity of human nature; but unless sex preoccupations can be diverted into channels where love of wife and children holds the center of the stage, there is likely to be danger ahead; and unless the pride of possession and of accumulation, which may start with postage stamps when the boy is twelve and end in the ownership of old masters or heavy stock holdings, is kept in proper bounds, the pursuit of natural desires may become socially unwise.

Failure to provide proper channels for these two tendencies has familiar results. Itinerant workers who are permanently "jobless, womanless, voteless" may be a menace to the stability of the community. Workers who have never been able to get sufficiently ahead to own more property than can be packed into a rucksack have not the same sense of responsibility and partic-

ipation in the permanent life of the community as the man who owns a house and furniture.

The problem of balancing these several tendencies must depend in the last analysis upon some agreement as to the purposes which industry—and indeed, life itself—is to serve.

The Desire to Possess.—There is undoubtedly in the human characteristic of possessiveness a stabilizing influence of considerable social value. If people can establish an area of proprietorship and control, even though it be only over a back yard thirty feet square, a real satisfaction is secured. Things that are undeniably "our own" are a pleasure to us. It is probable that normally the sense of ownership is most stimulated where the things possessed are in actual use by the owner and are the product of his own labors or the expression of his personal choice.

To be sure, this natural tendency, under modern conditions, can take perverted and unwholesome turns; but the important fact for industrial experts to bear in mind is that, apparently, possessiveness is a good quality if it is kept in balance by other factors like love of family, creativeness, and desire for approval. Until manual workers can get some reasonable degree of satisfaction through this tendency, they are being deprived of benefits and enjoyments to which they are entitled. Moreover, all groups in the community seem today so to translate all values into cash terms, that material possession, or the symbols of it, is an unduly conspicuous factor in securing social approval.

The Value of Curiosity.—A further desire of human beings is to know. Curiosity is native; and the word "why" comes naturally to the lips of those who have not been discouraged too often by receiving no intelligible answer to their questions. Generally speaking, people do what they have to do better when they know why they do it. There is a fundamental connection in the human mind between conduct and knowledge, as well as between conduct and impulse. It is true that conduct is largely impulsive or habitual, but the hope of getting any direction into behavior, of securing some sensible selection by the individual of socially useful activities, is in getting him to know better. To know better is to have in one's mind an accumulation of past experience of one's own and of others in similar situations, and knowledge also of how the experiences came out. Knowing better is thus an outgrowth of curiosity; and, on the whole, the more curious persons will tend to be the more

intelligent. Intelligent conduct is conduct in which a course of action is pursued similar to that course found by previous selection from among similar alternatives to bring a better adjustment of the individual to his surroundings.

The hope of improving the quality of people's choices in the ordinary problems of life lies in cultivating this natural desire to know. A wider knowledge, this making available to the individual in organized form the best experience of the past, is the essence of education. Managers should realize that an educational motive can profitably be used by them to dictate the character of most of their personnel activities. Good personnel work, in short, is that which makes workers more alert, curious, and thoughtful.

The Desire for Association.—A further active desire of people is to associate with their kind, particularly with people whose outlook and purposes are similar to theirs. Modern industry requires an unprecedented amount of association and cooperation; but much of it is enforced. People cooperate in factories not because they want to, but because they must on pain of foregoing a livelihood. The problem of rendering this association a voluntary and willing one is urgent because it is in association which is reasonably spontaneous, self-initiated, and self-sustained that the most effective work is done and the most pleasurable atmosphere prevails.

Shop committees and labor organizations, whatever their other values or dangers, are unquestionably an asset in satisfying this elemental yearning for comradeship. There are evidences today in certain carefully managed plants that, whenever the desire to create and the desire to associate can be coupled with people's naturally eager search for the approval of their fellows, there is a strong and irresistible concentration of human sentiment which swings any program to which the people involved may set their hand.

The Desire for Approval.—It is because the desire to associate is so innate that the demand for the approval of those with whom we associate is also dominant. If properly used, this desire to be thought well of by one's fellows is an immensely constructive force. Much that we speak of as the conventions of society is nothing more than a historically successful process of organizing the approval of men in behalf of those ways of acting which past generations believed to be safe and wise. The problem that

arises at every turn in industrial life is how to organize the approval of fellow workers, and the approval of consumers, so as to offer a legitimate and important stimulus to useful effort. It becomes increasingly clear that, after a reasonable minimum return has been assured, it is not money nor the pay envelope that stands at the center of the thinking of owners, managers, and workers. It is the honor and standing which come with the monetary return.

More passionately than almost anything else people desire to be thought well of by those whose opinion they value. It seems indeed as if this yearning for approval was only a diluted form of some tendency even more basic, a tendency to give and receive generous, disinterested affection and regard between man and man. This tendency has its definite basis, and it only can be fostered if its sources are properly understood. Good will and actual warmth of intercourse between individuals and between groups depend upon personal acquaintance and upon a full knowledge of people's motives and achievements. If it is true that people fundamentally desire not only approval but affection, there is a value in widening and deepening the quality of personal relationship in industry, which has thus far been unrealized and unused.

The point in this connection is the thoughtful observation of a ranking industrial executive that "the most successful leader is the one who loves those whom he leads."

The Desire for Justice.—Related to the desire for knowledge and approval is a deep desire for justice. Contradictory as may be the forms which this demand takes from decade to decade, men are still eagerly searching and are still never satisfied until relationships, institutions, and opinion seem to them just. The appeal of the "square deal" has not been in any definition or specific application which it ever received, but in the universal demand of people that, in so far as they have knowledge about a situation, fair play shall prevail.

As applied to the industrial problem, this idea of fair play is, of course, especially baffling; but there do seem to be emerging several ideas which lend it definiteness. That there should be some approximate relation between expenditure of effort and reward is now thought to be fair. That passive, absentee ownership is sufficient justification for the receipt of income is, conversely, being increasingly thought to be unfair. That full

authority over shop affairs and terms of employment should be vested in the management alone is also being questioned by many as unfair. That the continuance and extension of the basic, essential industries should depend upon the willingness of private investors to lend money is another condition which some groups in the community believe unfair.

At any given moment it may be hard to determine what a given group of workers consider as fair for them; but once it is known and expressed, they will be unhappy till they get it, or until they change their minds. Shifting though this demand for justice is in its concrete manifestations, in the abstract it is a strong and continuing motive which is potent as it is focused effectively on specific situations.

Love of Beauty.—There is a similarly indefinable characteristic of people in their desire for esthetic satisfaction. Groupings of line, color, form, and sound which are felt to be beautiful are profoundly satisfying and a source of great refreshment. Yet beyond this general statement it is difficult to go because esthetic standards are so divergent.

A knowledge of "the best that has been thought and said in the world," is within limits a source of individual enjoyment; and we find mind meeting mind and spirit rising to greet spirit back over the centuries in a way that indicates a common yearning after the fine things of the intellect and the spirit. So that varied as esthetic standards may be, we do find a desire for beauty as native and permanent as a desire for justice and truth.

Love of Goodness.—Yearning for goodness or righteousness, vague and sporadic as it often may be—covered over by more immediate claims, set at naught by the paralyzing effects of some fear—is still a historic fact in human experience. Historically it has usually been identified with some religious sanction. This desire has thus far been expressed largely in terms of individual conduct, and, until recently, there has been little attempt to reconcile ethical demands upon groups with those made upon individuals. But as the sense of ethical obligation for right conduct spreads to include group behavior, managers should witness a release of power, energy, and good will. They must definitely reckon with the increasing part which the passion for righteousness, and the demand for righteousness reenforced by religious sanction, may play in the thought of workers and consumers, as well as among themselves. For the concrete expres-

sion which such a sentiment finds is in human cooperation, fellowship, and fraternity, in public service and efforts for the common good.

The Unifying Factor.—Human nature is the manifestation of the interaction of all these impulses and desires and other elements and habits. Human desires cover a range extending from essential physical needs to more generalized demands of impulses and habits, to intellectual, moral, and spiritual desires. All have to be reckoned with; all have a place.

The human personality might thus seem to be only a battleground for conflicting impulses and habits. There is a sense in which this is permanently true; but unifying tendencies are at work. Organization of the individual's impulsive and habit life is not merely necessary, it is as native to human beings as thought itself. There are indications that society will realize the promise of personality only as it understands how potentially fine and generous are most of the strongest, inherent human tendencies, for conspicuous among the human desires which are seeking constant expression are the positive characteristics of love of family, of association, of creation, of group approval. Personality is thus the organization into effective individual expression of the demand for fullness of life, forbearance, generosity, creative power, comradeship, and love.

In a word, upon examination, the human personality is found to contain within itself its own penetrating suggestion as to human purposes. The fulfillment of personality thus becomes a significant end in life. The integrity of the individual life and the maximum improvement in the quality and variety of its manifestations are permanently valid objectives, for out of human nature spring all the positive energies which in their expression satisfy the individual and contribute to social upbuilding. This fulfillment of personality is the liberation in the individual of those native qualities which make him free, active, and energetic. Because fulfillment brings this it brings to pass activities which, *ipso facto* have social utility. Personality is essentially a social product, depending on a process which is reciprocal in its effects. It is the best possible life of the individual; and by being that for the individual becomes also a contributing force in the common life of the community. Self-realization fundamentally conceived and efforts at social service are, in short, but two aspects of one fact, the fact of individual fulfillment.

It thus becomes a valid purpose in life is to desire the development of as many individuals as possible into fine, free, generous, serene, and happy human beings. No one has ever excelled the compactness and directness of Aristotle's characterization of happiness as "an activity of the soul in the direction of excellence in an unhampered life."

Personality in Industry.—Reinstatement of the human personality as of central value in life has a significance for industry which should not be ignored. It implies that as a condition for the development of the individual there must exist a reasonable freedom for choice of work, for leisure, for growth, for free association, for exercise of the whole gamut of human faculties.

Industrial practices are, in other words, to be judged in terms of their effect on human beings. If human personalities are the "home and center of all values," then they are or should be a central factor in industry. Surely, managers and workers are not carrying on their labors for the sake of industry. Industry is being carried on for the sake of people—the people in it and the people whose needs it serves. The profession of management has a major task of understanding this purpose, this natural and sensible emphasis upon the human values as central in the world's economic life. The department of personnel is indeed, as someone has well characterized it, the department of personality. It is the department conceived to bring working and living into real identity.

In the light of present-day labor problems and of contemporary knowledge about human characteristics, the need for a redefinition of standards of corporate procedure and for a new statement of purposes in industry, is only too apparent. Happily, it is now being increasingly acknowledged that human beings natively and fundamentally prefer doing good to doing ill, prefer creating to destroying, prefer approval to disapproval, love to hate, and happiness to misery. Industry, if it is to develop in the light of these human needs and desires, must come to this simple but essential truth—that human beings are of primary value in life.

The purpose of industry is to make needed goods in sufficient quantity and at moderate cost. But, more fundamentally, the purpose of industry is to enhance human happiness. Until industrial managers set themselves to reconcile these two pur-

poses there will be conflict and misunderstanding not only between managers and men, but in the minds of managers themselves.

It is a matter for congratulation today that such a reconciliation gives promise of being realized; but it will be fully possible only when there is wide recognition that human personalities are of supreme value in life.

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CHAPTER III

THE REASONS FOR A PERSONNEL DEPARTMENT

As indicated in the first chapter, the fundamental reason for the development of a separate administrative division to supervise the human relations is a growing recognition that the characteristics of people are different from those of machines or raw materials. If native capacities are to be discovered, developed, trained, or applied in effective ways, these human relations must be analyzed and administered scientifically. The advance of psychological knowledge promises to make personnel direction as highly specialized as administration in the other major fields.

A number of important reasons stand out for the development of the idea of a personnel department. These may be summarily stated as follows:

1. The division of labor.
2. The important part which organization plays in the conduct of all affairs in modern life.
3. The corporate form of organization.
4. The development of administrative science.
5. The economies to be effected in reducing labor costs and losses.
6. The necessity for coordinating miscellaneous personnel activities as they develop.
7. The practical business success which has been attained by personnel departments in the experience of the last fifteen years.
8. Democratic tendencies of the day.

In order to get a convincing picture of the business justification for introducing personnel departments, each of these reasons will be briefly characterized.

Division of Labor.—The development of power-driven machinery and the subdivision of processes into operations which are so largely the tending and feeding of machines means that, for a large group of workers in modern industry, their work has little intrinsic meaning, significance, and satisfaction. Even if as few as one-half of the manual employees in industry occupy

themselves at work which offers no outlet for self-expression for a long continued period of years, the problem is still so serious as to require expert attention, if the development and enthusiasm of the employees is to be assured.

Some psychologists further claim that the failure of modern work to require real thought from the worker gives rise to a condition of "dispersed thinking and emotions bred of revery which make for unrest and unhappiness."[1]

In this field the personnel executive therefore finds an important task awaiting him. One of his great opportunities lies in helping all the other executives to realize the importance of aiding in every conceivable way to restore to work the opportunity for self-expression, or failing that, to provide compensatory interests which will still keep the employees' thinking and interest in the direction of furthering the corporate ends.

The Importance of Organization.—The conduct of affairs in modern life, whether it be in industrial, political, or social fields, entails the bringing together of groups of people to accomplish a specified purpose. In industry nothing is accomplished except through organization—which means mobilized minds and wills applying energy to carrying out some defined end. To bring a group of people thus into effective working cooperation is not achieved to best advantage without careful and deliberate study. The relation of director to directed which an organization inevitably requires creates personal stresses and strains, as well as the problems of coordination of activity, which requires special scientific consideration. In short, it can be said that wherever a group of people is working together to accomplish a specific end, there is need of deliberate planning to make the organization function smoothly. Many aspects of this task come under the head of personnel activities.

The Corporate Form of Organization.—The corporate form of organization which has extended rapidly in the last half century has also tended to develop an impersonalism in the relationship among different groups of workers which has its dangers, both to productive efficiency and to human happiness. An important reason why results in securing economies in large-scale plants have never realized people's expectations is that this impersonalism has helped to create indifference about the

[1] Mayo, Elton, "The Basis of Industrial Psychology," *Bull.*, Taylor Society, December, 1924.

results of their work in the minds of manual workers and even of lower executives. The attitude has been that, since they were working for a big and rich company, economy was no object; that, since they got relatively small pay, they would give a relatively scant return in quantity and quality of work.

To counteract the adverse effects of long-range and large-scale management, a deliberate and a comprehensive program is necessary; a program based on a recovery of personal contacts and personal acquaintance between managers and men. Of course, one can only know a limited number of persons by name, and that makes it possible to reckon with the individual's special qualifications and limitations. Yet, it is upon this sense of personal relationship and upon a knowledge and utilization of the individual's special activities that harmonious working relations in large part depend.

A personal relationship between someone in the management and each worker inevitably has to exist. Usually, a foreman or his assistant stands as the personal link, but as soon as the need for expert selection, training, and negotiation over terms of employment is seen, the necessity also arises for personal knowledge and association on the part of other executives than the foreman. The staff department which is striving to cultivate and improve the quality of these personal contacts and adjustments is, in fact, whatever its name may be, the personnel department.

The problem of coping with the impersonality of the corporate form is frequently spoken of today as that of fostering company morale. This development of a sense of corporate unity and *esprit de corps* is increasingly recognized as one of the indispensable assets of an effective organization; and it is also recognized that this morale is not achieved without deliberate thought and effort. If morale is conceived as a mobilizing of energy, interest, and enthusiasm on behalf of a known purpose, the importance of familiarizing all in an organization with its purposes and of bringing them into harmony with these purposes is a task which is primarily one of a personnel character. The personnel department is essentially the morale-building department.

The Development of Administrative Science.—Hand in hand with the experiments which have gone on in recent years in more and more refinement of the functioning of organizations has gone much study of the science of administration based on both industrial and political experience. Much of the analysis of

administrative activity, which is associated with the phrase "scientific management," has contributed to a recognition on the part of students that the activities which have to do with enlisting human interests and enthusiasm constitute really a function by themselves. This means that they are different in essence from all the other types of administrative activity which management entails. The fields of production, finance, sales, and, in some cases, accounting, purchasing, and engineering are recognized today as no more distinct in character than is the field of the personnel activities. The growing body of knowledge which psychologists and physiologists supply about people has led managers and students to assert more confidently than ever that the field of personnel management is subject to the formulation of scientific principles no less than these other fields.

Not only have such functions as accounting and engineering developed an elaborate technique of their own requiring expert attention, but each of them has in the process of refining its technique pointed to ways in which the personnel problem could be more scientifically and systematically handled and standardized. The development of cost-finding methods in the accounting field and the development of job standardization and measurement technique in the engineering field are examples of the contributions of other functional activities to the building up of a case for a specialized personnel function in management.

The Economies to Be Effected in Reducing Labor Costs and Losses.—The methods of measurement and reporting mentioned above have done much to make managers aware of the costs and losses that are constantly entailed in trying to secure an effective application of labor to work. The following items, which represent a definite and frequently substantial cash loss to the company, supply one of the most effective causes and one of the most concrete evidences of the value of expert and specialized attention to the handling of the employee relations. These items only are listed here, since the discussion of the ways in which they affect labor costs adversely are discussed extensively in their proper place in the balance of the book. They are:

Labor turnover.

Excessive absence and lateness.

High sickness rate.

A too long training period; a too costly training period due to spoilage of materials; excessive wear and tear on machines.

Indifferent and slow work resulting in high unit costs.
Unintelligent and wasteful use of material, machines and power.
Poor quality of product.

These are the most tangible costs, but unquestionably others may be added.

The Necessity for Coordinating Miscellaneous Personnel Activities as They Develop.—The necessity for coordinating miscellaneous personnel activities during the first fifteen years of the twentieth century brought recognition, on the part of progressive business executives, that they were fostering in their organizations a number of independent departments and divisions which logically belonged under one major function. Historically, the growth of the idea of the personnel management is directly traceable to a growing appreciation that a number of scattered movements and independent forces all relating to the humane and intelligent utilization of people in an organization should be logically brought together under one administrative head.

Almost as two interdependent strands of one activity, the vocational guidance movement and the employment management movement, in the years from 1906 to 1915, were striving to improve the methods by which people secured positions in the industrial world. While the vocational guidance movement went at this problem from the angle of the placement of school children in industry, employment management went at the problem of effective placement both of school children and of adults by specialists within stores and factories.

The movements for vocational training and for corporation school training were another distinct influence which developed in relation to each other and which tended to stress the value of special training work within industry.

Industrial medical work began successfully with clinics and even hospitals in those industries and plants which were so isolated that the services of community physicians and nurses were not available.

The safety-first movement also had its own special appeal, beginning in the most hazardous industries; and it, too, grew as a separate branch of management effort.

The scientific management movement with its emphasis on the intensive study of jobs, objective measurements of results, and concern as to the fitness of workers for these jobs, introduced

a much-needed emphasis into the thinking of managers about their personnel problems.

Collective bargaining dealings in some plants and industries and shop committee dealings in a few others were also developed as an industrial policy looking to a more enlightened handling of group negotiations and of grievance adjustments.

A further early influence which contributed its part was the so-called welfare work of a few large companies which interested themselves in beautifying factory surroundings, in lunch rooms, in housing, and in other activities not directly related to the work of production.

In the period from 1910 to 1914 a few companies had brought the activities represented by all of the above movements under the direction of one executive to whom, in a few cases, the title, "personnel manager," had been applied. It was gradually seen that this was the most economical administrative method for handling a variety of related activities, all of which had proved to be paying business procedures.

The war unquestionably hastened this integrating process and convinced managers and students of the science of management that this integration was sound and necessary. All phases of the personnel movement developed more in the five-year war period than would otherwise have happened in ten years. The army personnel work with its psychological testing activities contributed an additional positive influence in bringing the whole personnel movement up to a scientific plane. The fact that much of the personnel work done during the war was done under compulsion and was dropped as soon as this compulsion was removed, does not alter the fact that the war experience demonstrated to many managers in the non-munition industries that it was good economy to handle all personnel work under one expert staff department.

The Business Success Attained by Personnel Departments.—A reason for the introduction of personnel departments which can now be used, in the light of fifteen years' experience, is that the results of this type of work in scores of companies have proved its business value conclusively. In respect to all the labor costs and losses enumerated above, facts and figures can be brought forward from company after company to prove the economies which have been achieved within a relatively few months after special and expert attention has been given to one

or another personnel activity. Employment costs, training costs, accident costs, and labor costs per unit of product have, in numerous companies, been appreciably reduced as a result of the introduction of the type of expert procedure discussed subsequently in this book; so that it is now true that one of the best arguments to be advanced with a skeptical or undecided management is the testimony of other managers who have been successful with their own personnel work.

Democratic Tendencies of the Day.—A contributing reason for the introduction of personnel work, which is much less concrete but nevertheless a fact, has been the increasing sense in the modern community that the relation of manual workers to industry was a master-and-servant relationship of a character which did not square with the professions of democracy, equality of opportunity, and fraternity, which have always been characteristic of American political and social life. The status of the workers as disfranchised agents in industry was increasingly realized by all thinking people, as well as by the workers themselves, to be a permanently unendurable relationship. Whereas little enough progress thus far has been made in reconciling the methods of industry with the principles underlying the conduct of American political life, still the development of personnel activities represents a distinct advance in the thinking of industrial managers. For it has meant fundamentally that workers are conceived of not merely as the means to the realizing of someone else's purposes, but as individual personalities who, in their own right and in ways of their own choosing, are entitled to life, liberty, and the pursuit of happiness.

Conclusion.—The case for the personnel department rests, in short, upon economic, administrative, and psychological grounds. The economic side is concerned with the structure of modern industry, the modern corporation, and the nature of industrial processes under present conditions of large-scale producing and selling. It has to do with the increasing pressure for efficient production and service with the minimum of effort, waste, and friction, as well as with the maximum conservation of human energy through specialized attention to problems like selection, training, incentives, etc.

The administrative side has to do with the fact that all the activities included under personnel are functionally related, in that they all require expert knowledge of people.

The psychological side has to do with the interest, incentives, good will, and morale of the workers. It is concerned with their demand for security of employment and fairness of treatment, with their growing conviction that they are entitled to a new status in industry, which will enable them to "share in the gain not less than in the toil of living."

It is difficult to say which of these three grounds offers the strongest case for organizing into a unit the administration of a company's human relations; but it surely is true that together they make a case which is unanswerable.

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CHAPTER IV

FUNCTIONS OF THE PERSONNEL DEPARTMENT

There is increasingly wide agreement regarding the functions to be assigned to the several divisions of the personnel department. In this chapter we shall outline these functions, leaving to subsequent chapters a description in detail of the methods of executing them.

Experience has shown, of course, that all corporations cannot carry on personnel work in complete accordance with any one standardized personnel plan. The statement of details here included represents, however, the procedure of some of the best organized companies, and it constitutes a logical, coherent, and practical grouping of functions. Whether or not it is advisable for any company that wants to regroup its various executive and operating activities to conform to this layout and how rapidly it should do so are questions of practical company policies which should be considered most carefully. It is, of course, important to remember that the personnel department should not extend its authority any faster than it can competently administer the work under it nor until the affected subordinate executives are favorably disposed to cooperation.

People versus Functions.—Managerial thinking on this problem will remain sound if at every point the distinction is clearly kept in mind between people and functions. In a small plant there may be but one personnel executive, yet he may have responsibility for various functions. Indeed, up to a reasonable point, it is usually good policy to let the qualifications and interests of members of the executive staff to a considerable extent determine the actual distribution of their duties. In large plants, however, it is more possible and more feasible to keep the responsibility of individual personnel executives more clearly differentiated. Any difficulties which may arise in this connection may be greatly lessened if the policy is followed of keeping currently accurate two charts—one showing the several functions which it has been agreed the personnel department

shall assume, the other showing the duties assigned to each member of the personnel staff.

Division of Personnel Work.—For administrative purposes there is an approximately logical division of personnel work into employment, health, and safety, training, research, service, adjustment, and joint representation. Before enumerating the detailed responsibilities under each of these headings, it is well to suggest the general basis of this classification.

The function of *employment* covers all the work entailed in securing, properly introducing, stabilizing, and retaining a willing and effective working force.

Health and safety cover the actual physical care of the personnel and its protection from accident. This division has to do with personnel hygiene and with plant sanitation in order to conserve and improve the health and physical integrity of the workers.

Training covers all the various educational activities of the plant having to do both with definite job instruction and with broader cultural education.

Research includes those activities of intensive job study and of periodic plant analysis, labor audit, which are essential for securing a basis of fact on which decisions about terms and conditions of employment may be based.

Service includes all the miscellaneous activities which are directly related to the comfort and welfare of the individual, such as company housing, insurance, or recreation.

Adjustment and joint relations cover all the efforts—by individual conference, shop committees, "company unions," collective bargaining with labor unions—to settle upon the terms of the labor contract and to adjust difficulties which have arisen either as to those terms, their interpretation, or alteration. This division is interested in permanently maintaining a relationship between managers and men which is characterized by mutual understanding, candor, confidence, good will, and freedom from complaint.

Employment.—Under the designation of employment, the following duties are usually assigned:

1. Knowledge of:
   (*a*) Labor market and the sources of supply.
   (*b*) Work requirements—use of job analysis and job specifications.
   (*c*) All wage rates paid.
   (*d*) Hours of work and other terms of employment.

2. Selection including:
   (*a*) Preliminary interview.
   (*b*) Interview.
   (*c*) Hiring.
   (*d*) Follow-up of references.
   (*e*) Physical examination.
   (*f*) Other special tests, including intelligence and trade tests.
3. Introduction to plant and general instructions to new employees on company policies.
4. Follow-up of new employees at the job.
5. Recommendations for transfers and promotions.
6. Regularizing of employment.
7. Interviewing all leaving employees:
   (*a*) To insure fair consideration of their case.
   (*b*) To discover reasons for leaving.
   (*c*) To analyze and pass upon discharges.
8. Compilation and care of records of:
   (*a*) Applicants.
   (*b*) New employees.
   (*c*) Adequate individual progress records.

Health and Safety.—Under health and safety the following duties are usually assigned:

1. Recommending of standards of physical fitness for workers at different jobs.
2. Physical examinations of:
   (*a*) Applicants.
   (*b*) Present employees.
   (*c*) Re-examination of those with special disabilities.
   (*d*) Special oversight of workers exposed to industrial hazards.
   (*e*) All employees at periodic intervals.
3. First aid work. Hospitals.
4. Treatment of:
   (*a*) Surgical and accident cases.
   (*b*) Dental cases.
   (*c*) Ocular cases.
   (*d*) Medical cases.
5. Giving of individual medical advice—home service.
6. Systematic plant inspection by:
   (*a*) Safety engineer.
   (*b*) Members of general and departmental safety committees.
7. Cooperation with proper authorities in reporting all accidents.
8. Control and reduction of accidents:
   (*a*) Following best building practice.
   (*b*) Safeguarding hazards.
   (*c*) Safety organization and education.
   (*d*) Follow-up of accidents.
9. Compensation payments.

10. Systematic check-up of all working conditions:
    (*a*) Cleaning.
    (*b*) Ventilation and humidity.
    (*c*) Lighting.
    (*d*) Heating.
    (*e*) Washing and bathing facilities.
    (*f*) Toilet equipment.
    (*g*) Dressing rooms.
    (*h*) Lockers.
    (*i*) Drinking water.
    (*j*) Janitor and matron service.
    (*k*) General supervision of sanitary and working conditions.
11. Prevention and elimination of communicable diseases, epidemics, industrial disease hazards, and special strains of industry:
    (*a*) Fatigue.
    (*b*) Mental strain.
    (*c*) Special problems connected with women's work.
    (*d*) Study of working hours, and rest periods.
12. Cooperation in study and investigation of absences.
13. Adequate records and statistics on all health matters:
    (*a*) Physical examinations.
    (*b*) Sickness.
    (*c*) Treatments.
    (*d*) Accidents.
    (*e*) Occupational diseases.

Training.—Under training the following duties are usually assigned:

1. Training courses for executives.
2. Training courses for foremen, assistant foremen, and instructors.
3. Training new workers in company policies, and in knowledge of the uses of the company's product.
4. Apprentice courses.
5. Vestibule schools.
6. Part-time continuation schools.
7. Job instruction.
8. Company publications.
9. Suggestion systems.
10. Bulletin board information.
11. Circulation of magazines and library books.
12. Organization of educational clubs.
13. English and naturalization instruction.
14. Training for:
    (*a*) Transfers.
    (*b*) Promotions.
    (*c*) Inspection.

15. Training in:
    (*a*) Personal hygiene.
    (*b*) Safety.
16. Cooperation with outside educational agencies.

Research.—Under research the following duties are usually assigned:

1. Job analysis and preparation of job specifications:
    (*a*) Time and motion studies.
2. Fatigue studies.
3. Studies and recommendations as to wage rates.
4. Studies of cost of living.
5. Periodic labor audit of the organization.
6. Study of current experiments of other concerns with personnel activities, with recommendations as to their adaptability.

Service Features.—Under service features the following duties are usually assigned:

1. Recreation work:
    (*a*) Noon-day and rest-period programs.
    (*b*) Supervision of athletics.
    (*c*) Dramatics and musical clubs.
2. Benefit and insurance schemes.
3. Cooperative purchasing arrangements.
4. Rest rooms.
5. Assistance in planning summer vacations.
6. Employees' gardens.
7. Supervision of company housing.
8. Thrift activities.
9. Cooperation in the maintenance of adequate local housing, transportation, civic activities of all sorts, public health, primary education, etc.

Adjustment and Joint Relations.—Under adjustment and joint relations may conveniently be grouped the following duties, most of which would not be handled by the personnel department alone, but in conference with the other major department or departments which are also immediately involved:

1. Handling of questions of shop control, *e.g.*:
    (*a*) Adoption of shop rules.
    (*b*) Enforcement of shop rules.
    (*c*) Handling of grievances and complaints.
2. Adjustment of questions of discharge.
3. Cooperation in the supervision of shop committees

4. Adjustment of terms of employment:
   (*a*) Wages.
   (*b*) Hours.
   (*c*) Production standards.
5. Conferring with shop committees or labor unions with which joint relations exist, on all matters of common interest.

Miscellaneous Staff Activities.—There are other activities which are no less important, but which it is less easy to classify under specific functions. There is, for example, the important work of familiarizing the other executive departments with the work of the personnel staff, and of educating those departments into a proper appreciation and use of a wholesome point of view and procedure in human relations work. Efforts to secure regularized employment and production are also frequently prompted to a considerable extent by the personnel department.

There is also the responsibility of keeping in touch with the local and national organizations and movements which work in any part of the personnel field. This means that members of the personnel staff should, for example, be in touch with the work of the American Management Association, the Taylor Society, the Personnel Research Federation, the National Industrial Conference Board, the National Society for the Promotion of Industrial Education, the National Safety Council, the Bureau of Personnel Administration, the American Association for Labor Legislation, the United States Bureau of Labor Statistics, etc.

Organization Charts.—Chart I shows the major functions of the personnel department and its vital relation to the individual worker. It illustrates graphically the thesis about which this book is written: That the individual is the central value and end of the personnel department's activities.

In order to suggest a grouping of functions which conforms to the conventional arrangement of organization charts, Chart II is included. The effort in this diagram is only to restate in terms of administrative divisions and duties what the first chart also presents.

Chart III shows the lines of authority and responsibility in the personnel department.

Other charts showing the relationship of the personnel department to the other departments will be shown in connection with Chap. XXV.

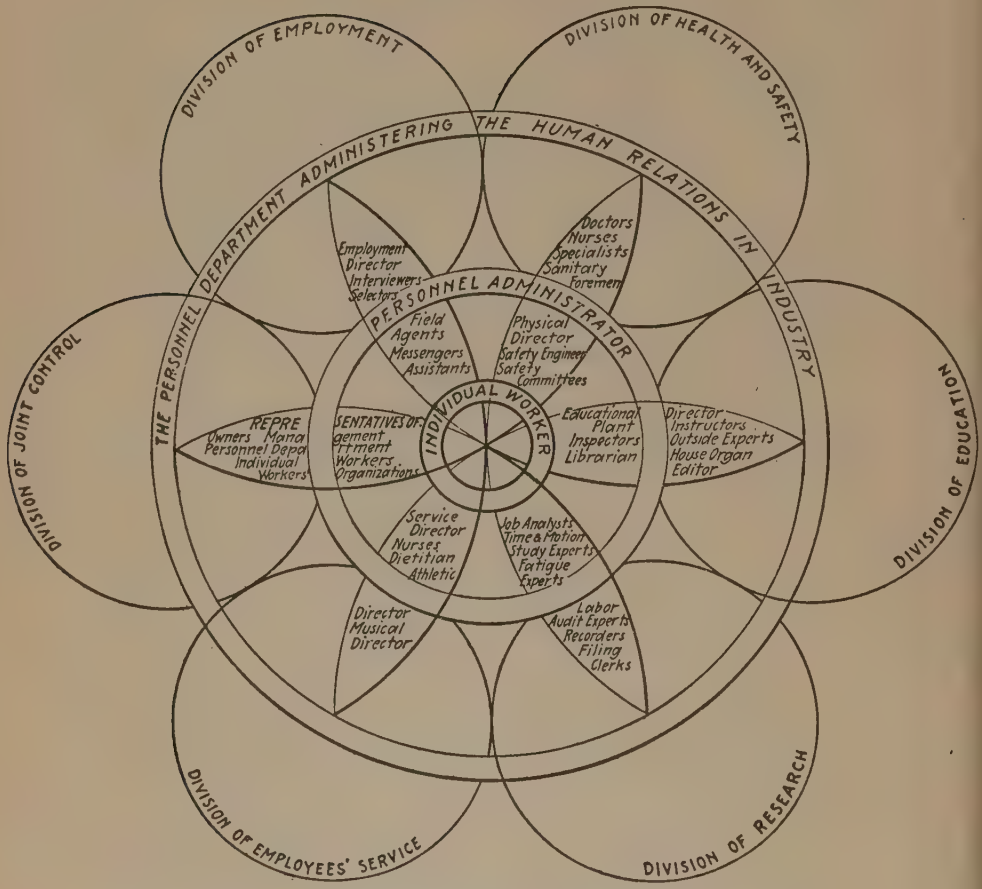
DIVISION OF EMPLOYMENT
DIVISION OF HEALTH AND SAFETY
THE PERSONNEL DEPARTMENT ADMINISTERING THE HUMAN RELATIONS IN INDUSTRY
Employment Director Interviewers Selectors
Doctors Nurses Specialists Sanitary Foremen
PERSONNEL ADMINISTRATOR
Field Agents Messengers Assistants
Physical Director Safety Engineer Safety Committees
INDIVIDUAL WORKER
Educational Plant Inspectors Librarian
Director Instructors Outside Experts House Organ Editor
REPRE
Owners Manag Personnel Depa Individual Workers
SENTATIVES OF gement rtment Workers Organizations
Service Director Nurses Dietitian Athletic
Job Analysts Time & Motion Study Experts Fatigue Experts
Director Musical Director
Labor Audit Experts Recorders Filing Clerks
DIVISION OF JOINT CONTROL
DIVISION OF EDUCATION
DIVISION OF EMPLOYEES' SERVICE
DIVISION OF RESEARCH

CHART I.—Personnel Department: Interrelations and Functions.

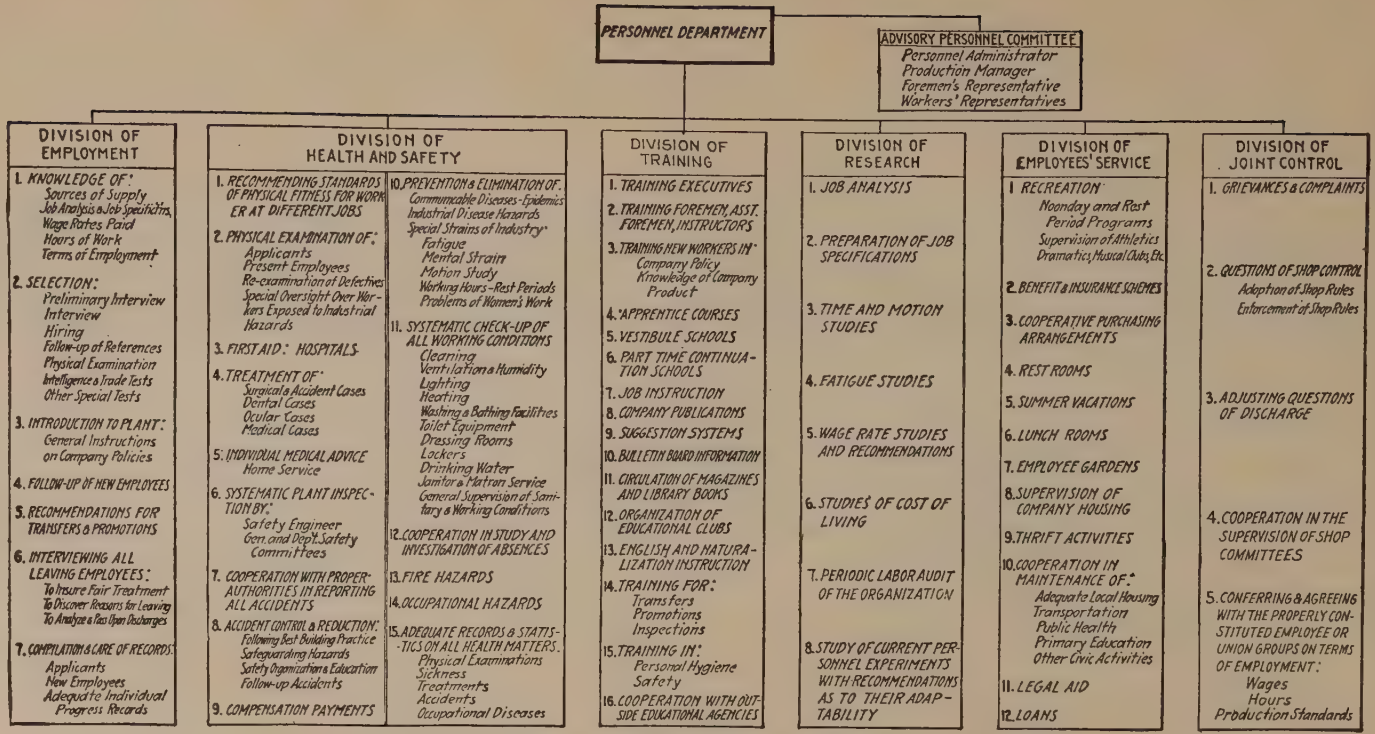

CHART II.—Personnel Department: Its Functions and Administrative Divisions.

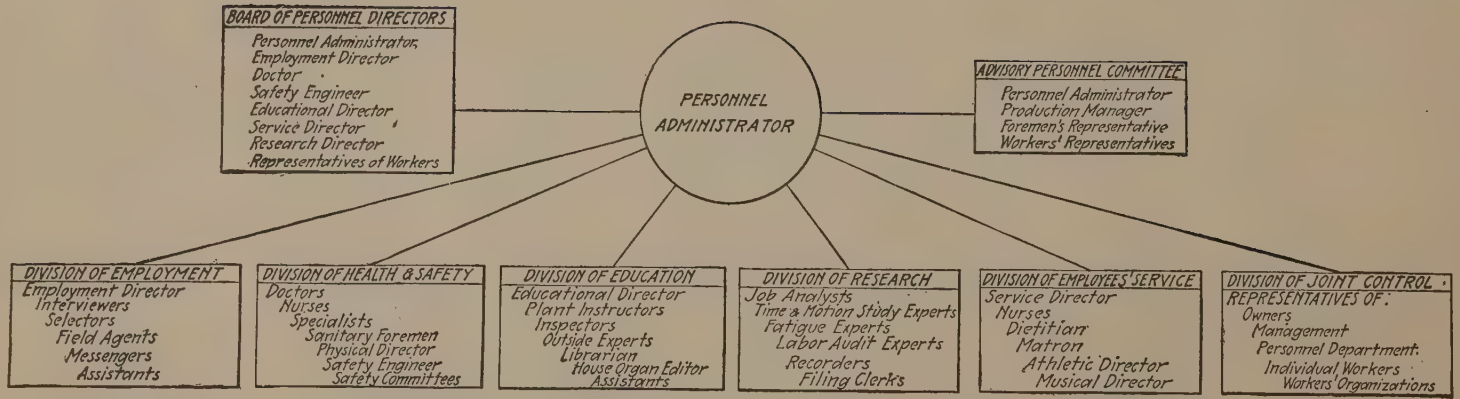

CHART III.—Personnel Department: Chart of Authority.

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CHAPTER V

SOURCES OF LABOR SUPPLY

Managers who are fortunate enough to be building new plants today, decide upon their location with an eye to the availability of the kind of workers which their industry requires. Managers whose plants have been located without careful consideration of the sources of labor supply are frequently at a disadvantage which only deliberate efforts can overcome. Deliberate efforts at cultivation of sources of labor supply are increasingly being recognized as legitimate and profitable.

"Labor scouting" was a familiar activity before the war. It became deservedly unpopular with progressive managers during the war because it meant "stealing workers" in ways not altogether honorable nor conducive to shop and individual efficiency. Cultivation of sources of labor supply must be a more consciously planned, scientific and justifiable procedure than scouting. It must be rather an attempt on the part of managers so to bring the advantages of working in their plants before qualified workers, that they will want to apply for any openings which may occur. It is a matter of organizing the community's good will toward the plant—of creating an attitude toward the factory in working-class centers which makes people really interested to apply for a job. It is creating a legitimate differential between the desirability of working in any plant and the superior advantages of working in a particular plant.

In a campaign to cultivate the proper sources of labor supply for a plant, it should be possible to presuppose two things: That the company is doing all it can to keep employees with it continuously, so that, except when expansions in plant occur, the need for new workers will be minimized; and, secondly, that it knows accurately the kind and quality of working ability which it needs.

On the first point, it should be remembered that some of the best corporations spend comparatively little on cultivating sources of supply, and on selection. Their working force remains

substantially intact year after year—which is certainly a desirable objective to strive for.

On the second point, it is true that many plants do not know how much ability and what kind of ability their work calls for.

Assuming that the company does know its labor needs, by deliberate efforts it can undoubtedly improve the quality of the applicants from among whom it may select. These efforts would naturally emanate from the personnel department and must largely take the form of personal contacts. Someone from the employment department should be allowed time in which to make a community or neighborhood survey. This would not need to be a house-to-house canvass, but it should result in a knowledge of the community agencies and leaders who are likely to be in touch with the properly qualified workers. It is quite important to consult local teachers, school superintendents, and ministers on the special types of skill the public, parochial, and trade schools offer. Moreover, in medium-sized and small communities, stockholders, public and lodge officials, newspaper reporters, tradesmen, old residents, and even car conductors are in touch with workers of one or another grade of skill.

Especially is it valuable to develop personal associations with leaders, bankers, priests, and editors in foreign-speaking groups. Confidences which are genuinely established with such groups help greatly to minimize serious misunderstandings which might otherwise develop with colonies of foreign-born workers. These workers will keep the stream of skilled foreign-labor supply moving by advising their friends at home where to migrate to find congenial employment.

The same is true of relationships with local trade union groups and with local public employment offices. The value of personal acquaintanceship as the basis for subsequent dealings is tremendous. A wise personnel manager will allow and encourage his assistants to spend some time in maintaining friendly associations with all the useful community organizations.

Effect of Restricted Immigration.—All signs point to the continued commitment of the United States to a policy of restricted immigration in the next few years. One effect of this is to make it increasingly important to cultivate intensively the sources of labor supply which are at hand and to select from that labor supply with the most discriminating care. If there is no

longer an inexhaustible supply of foreign unskilled labor available for the most disagreeable work, the conditions surrounding this work will have to be improved as much as possible, machinery will have to be introduced to the maximum, and the level of compensation for such work will inevitably rise.

One further effect of restricted immigration which should be noted because of the problems to which it gives rise is the migration of negroes from the South into the industrial centers of the country. The tendency has been marked in the last few years for negro labor to supplant foreign-born labor at unskilled industrial work. Because the negro is at first willing to accept a lower wage scale and because of social, housing, and other problems created by the working together of negro and white laborers, a personnel problem has been created here in many communities and companies which calls for the most delicate handling.

Any personnel manager who finds that his company has either by deliberate intention or by accident brought an increasing number of negroes upon its pay roll should at once survey their whole relationship to the organization to be sure that conditions are not developing which may lead to strikes or, in their community aspects, to race riots such as have already been experienced in a few industrial centers.

Much the same situation arises regarding the importation of Mexican laborers, although, as yet, this has not taken place in any such considerable scale as has the employment of negro workers. Equal care is necessary, however, in handling the personnel and social problems involved in the use of this group of workers.

Possible Sources.—Enumeration of actual sources of labor supply would be a prolonged task, since the sources tend to vary with the size of the community. There is, moreover, one technique of cultivation in the small town, another in the small city, still another in the large city.

One thing, however, may be said of the problem in every locality. Success depends upon the reputation which the company has in the community for fair dealing, for adequate terms of employment, and for decent working conditions. Without these, workers may come, but they will not stay.

It is also generally true that friends and relatives of present employees are a quite reliable source of worthwhile new workers.

Some firms find this to be so preeminently true that they pay employees a bonus of from $2 to $5 for new workers whom they bring in and who stay more than a given number of weeks. Other firms find it of advantage to keep in touch with former employees, who resigned for reasons of marriage or because of family troubles. These ex-employees can often be drafted back into the plant for part-time jobs or occasional rush work.

Many firms encourage written applications from people who are elsewhere employed, but would like to change. They find that people who will write in this way are usually steady, ambitious workers who, when they change at all, stay for a considerable time.

Casual newspaper advertising is used successfully by some firms; but it is regarded as a last resort because its usually unsatisfactory results are out of proportion to its cost. On the other hand, drawing upon the "positions wanted" advertisements is one avenue for securing young workers who are offering their services through the daily paper.

Public Employment Offices.—In other words, from the point of view of a scientific organization of the labor market, there is an important place for an efficiently run clearing house for all employment information. Such a clearing house should, if properly administered, be a useful source of labor supply to the majority of plants; but for the clearing house to be valuable it should be country-wide in extent, non-competitive, free, and in possession of some technique for trade testing or individual rating.

This is only another way of saying that such an employment service should be a public function. During the war a federal employment service was created which, despite inevitable limitations due to its emergency character, demonstrated what might be done to supply employers with information about available workers, and workers with information about available positions.

It is no part of the task here to meet the obvious criticism which may be brought against the efficiency of that service in certain localities. The practical difficulties which employers encountered were in some cases, undoubtedly extremely annoying; but those difficulties certainly do not offer a basis for refusing to recognize the essentially sound arguments for the continuance and improvement of that service.

Managers must recognize how necessary continuity of employment is to the average worker. They must realize that the time

between jobs will be greatly reduced and the morale of workers will be improved. The underlying working-class fear of unemployment can be minimized only if an efficient and universally operating agency of information exists, through which all openings are registered and practically all applicants cleared.

The plea here is for the endorsement by employers of a federal employment system, for a concerted effort by managers to get it reorganized, for a patient attempt to use it and cooperate with it, even if results do not seem at first to warrant the attempt. This country will never reduce casual employment and underemployment as it should be reduced until all labor reserves are consolidated on a national scale. Only so can that astounding anomaly of the present labor market that: "a rising demand for labor is no cure for unemployment"[1] be got rid of. By which is meant that a permanent cause of considerable idleness is the delay experienced by idle workers in trying to locate new positions by the tedious, wasteful, and discouraging process of "peddling their wares" from one factory to another.

Once managers become really alive to the damaging results of unemployment upon working-class morale, they will be ready to help in building a system of public employment offices which will be in fact what they should be in theory—the principal sources of factory and mercantile labor supply. There are, of course, various ways of achieving this end of a consolidated labor market and source of labor supply. It may be done by the presence of corporation employment workers in the public offices.

The graduates of grammar and high schools are systematically canvassed by some employment managers both for factory and office positions. Well-equipped applicants are also frequently found in business colleges and trade schools. In Minneapolis these schools keep in close touch with the employment opportunities in twenty-four different trades. Many of these educational institutions give technical courses in addition to regular courses. They are shaping instruction increasingly in terms of business and social values so that pupils may be prepared for rapid advancement in industry. Boston, Philadelphia, and other cities practise even more active cooperation between education and industry for improving sources of labor supply.

[1] See the brilliant analysis and exposition of this thesis in the fundamental study of the labor market by Beveridge, William H.," Unemployment—A Problem of Industry."

In the smaller communities house to house canvassing has even been resorted to by companies which were short of people. If tactfully done, such calling may help favorably to establish the factory in the minds of local people and encourage them to apply. Often, workers who go some distance to their work are glad of a chance to change to a factory which is within walking distance. Indeed, some firms prefer not to hire people who live more than a mile and a half from the plant.

Where there are collective bargains or strong unions, the union headquarters is usually a source for craft workers. Some employers have felt compunction about patronizing the union offices; have felt that they thereby, in some way, admitted a condition of union ascendency. This is, of course, a shortsighted attitude, since, if managers would go half way to deal with the unions in this matter, they could save much time and expense in locating competent craftsmen.

Ideally, under conditions of collective bargaining, there seems much to be said for having employment offices run jointly by the employers' association and the union. This tends to put them on a business footing, and assure prompt service which is satisfactory to both groups. It has the further important value of pooling the local labor reserves of the trade.

Such a pooling process should ultimately, of course, extend beyond the boundaries of an industry. There should be some central agency or group of agencies through which information about jobs could be cleared, not only for workers going from one plant to another, but for those going from one industry to another and from one locality to another.

In the organized industries there may be cooperative employment offices through which the bulk of the shifting within the industry takes place, leaving only the shifting between that industry and others to the public offices. There may be agreement between the employment manager of a concern and the public office that only applicants who come through the public office will be interviewed. This method was used with some success by one or two plants in a New England city where the public office proved competent to act as a central clearing house.

As long as the proper end is held in view, sensible methods will be devised. The aim must be to have the sources of supply become as unified as possible. It will save employers and workers alike many hours of valuable time as soon as agreement can be

widely reached that in one agency, and in one agency only, can all get what they want; that in one centrally organized system of offices all jobs are known and all unemployed workers registered.

Further Sources of Labor Supply.—A hitherto neglected source of supply is the newly discharged occupants of state, county, and municipal penal institutions. Approximately half a million inmates are discharged annually into the various communities of the country. The plight in which these persons are likely to find themselves is truly pitiable and a reflection upon the social conscience—not to mention business sense—of the respective communities. In most cases these men have a narrow margin of funds and few if any friends of such standing that they can be effectually used as references in getting jobs. They meet on all sides a prejudice against ex-convicts which all but forces them to remain outlawed and unproductive.

In this situation industrial managers have a responsibility for helping to reintegrate these unfortunates which they can no longer ignore. The Ford Motor Company of Detroit has set a notable example in this work of reintegration. It reserves one per cent of its positions for men with prison records, helping them develop into good citizens by offering them a second chance in life. Such employees need protection against denunciation, as well as careful and sympathetic oversight. There is every reason why industry should draw on this source, especially since by cooperation with penal institutions many employers have already demonstrated in a quiet way that former prisoners are not only "safe" to employ, but are usually eager for the chance to make good and establish a good name for themselves. The economic and moral gain to society of reviving hope and courage in these men by helping them realize useful and satisfying lives, cannot be measured in money terms.

Limits upon Sources.—Complication is introduced into the procedure of cultivating sources when definite limits are put upon the selective process. Some companies, for example, have recently decided to employ only American citizens. While it is easy to understand and sympathize with this position, it seems doubtful whether such a policy can be recommended for wide adoption. Until our country makes far greater provision for free instruction in English and naturalization than is now the case, it is an arbitrary and in a sense unfair restriction from the

workers' point of view to exclude them from employment on this ground.

The restriction that only applicants who live within a certain radius of the plant will be accepted is based on a desire to cut down the time of coming and going from work; to create a homogeneous group of workers; to make community ties and industrial ties more nearly identical than is usually the case. This also is a policy of doubtful value for general application; although there may occasionally be conditions, especially in the case of women workers, where such a policy is to be preferred.

The policy of excluding workers of some one race, religious affiliation, or color is one concerning the adoption of which the peculiar local circumstances and prejudices manifestly have determining weight. It is impossible to generalize as to wise procedure, but it is not only important but essential, where such exclusions are felt to be justified, to handle the procedure so that the basis of exclusion shall, so far as possible, be candidly acknowledged. Frankness in matters of this sort, provided always it is accompanied by kind and courteous treatment, is to be preferred to any hypocritical pretexts. In this connection it is well to remember that not what is said but the way in which it is said, is what counts most.

Sources of Supply for Executive Workers.—Some manufacturing companies build up their executive staff almost entirely by "scouting." Their employment chiefs periodically visit universities, graduate schools of business administration, and technical institutions. These representatives describe in a personal talk to graduating classes opportunities open in their industry, and invite application for positions.

In order to justify these university visits their effect should be twofold. Educational institutions should more vividly realize the demand of industry for trained material from which to select its future leaders, and be willing to adopt a broader outlook in educational policy. Students should gain practical guidance which throws light on their half-formed opinions about a life work.

In calling attention to sources of supply for executive positions it would be unfortunate, however, to slight the factory itself. Organizations which hold to a policy of "promoting from within" have in their own ranks people who know the business and its traditions, and who would be greatly stimulated by the assurance

of promotional opportunities. In order to be successful, such a policy will involve a deliberate training program for developing understudies and a thorough promotional procedure, the technique of which is described in subsequent chapters.

Conclusion.—Some experts feel that the necessity for cultivating sources of labor supply is in inverse proportion to the success of the company's personnel work. There is something to be said for this view; but a certain amount of turnover is inevitable, and it is good business to try to have those who apply of a progressively superior character. To secure this result a degree of deliberate planning is usually necessary, no matter how popular the plant may be.

The essence of this campaign of cultivation is that it shall be carried on by honest and genial assistants who know that the management is prepared to "deliver the goods," prepared to realize the hopes of opportunity and enjoyment which they have raised in the minds of prospective workers.

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CHAPTER VI

METHODS OF SELECTION AND PLACEMENT

Scientific and humanly sympathetic procedure in the selection of workers is a basic necessity in personnel work. Much of the costly turnover and friction of modern industry is directly due to a haphazard choice of workers. If those responsible for determining labor policies would but realize the importance of even a minimum of specific selection standards and expert service in applying them, much waste could be eliminated.

The process of selection is one in which management and worker are really after the same result. The chance that each worker will actually achieve a necessary degree of self-expression depends partly upon the judgment with which he chooses his job. His special interest is not alone to find an opportunity for an adequate livelihood; he wants to earn that livelihood from labors which are reasonably interesting to him, have some significance, and afford some satisfaction in the doing. The management's special interest is not alone to get enough "hands"; it wants to secure the cooperation of the requisite number of human wills—to secure a cooperation which will be intelligent and continuous.

Today no organization can afford not to take enough time with the induction of each new worker to assure that there is a reasonably successful adjustment of capacity to opportunity; but to effect this adjustment is no easy matter. The conclusion which can safely be drawn from the consensus of all recent experience is that *successful selection presupposes a separate staff division to administer it.* The first step in standardizing selection procedure is to set up an employment office in charge of an executive especially trained and experienced in this work.

The Interviewer.—Given this responsible employment department, what are the minimum conditions below which standards in the selection procedure should not be allowed to fall? Mention first should be made of the preliminary interviewer. In many large organizations it is necessary and desirable to have

applicants passed upon in a general way by a first interviewer who is thoroughly familiar with the company's employment standards and who weeds out the obviously unsuitable candidates. This work calls for special consideration and courtesy; and some firms put their best qualified selectors at this initial point. The first company representative with whom the candidate for a job comes into contact—be he gateman, policeman, or interviewer—cannot be too carefully chosen. Where there are several departments for which selection is being made and in which widely different types of skill are required, the value of a preliminary allocation of applicants to special interviewers is also valuable.

Both the preliminary and the final interviewers should be persons of maturity. The work of selection calls for too much sympathy, insight, patience, and fineness of feeling to make it safe in the hands of any callow young clerk. Also, since the successful applicant must be able and willing to adapt himself to the ideals and policies of the firm, an experienced judgment regarding him is essential. Those who come into personal contact with him must always have a lively sense of the importance of the hiring process not only to the management but to the worker. Interviewers advantageously may be people who have worked in the plant. Knowledge of some of the European languages is in some cases indispensable. Most important of all is a native, spontaneous interest in people, a sensitive regard for the nuances of personality, and downright warm-heartedness coupled with a level head. The conditions under which a man is to be preferred to a woman as selector are as yet not clearly defined, except that it is widely agreed that women workers should be hired by women interviewers.

Use of Job Specifications.—Before an interviewer can work intelligently, he must have in his possession detailed information as to the kinds of work the company offers and the qualifications required in employees. This information should be available in writing as job specifications, but it should be supplemented by the interviewer's actual knowledge of each operation, gained by him through having done it or having seen it done.

Job specifications are based on a full analysis of each job and methods of compiling this data are discussed fully in connection with that topic.[1] Specifications have two broad functions: to

[1] See Chap. XVIII.

describe and define process, and to describe and define the personal qualifications needed for carrying on the process.

On the side of the job, it is necessary for the interviewer to know and discuss fully with the applicant the length of time required to learn the job, its educational requirements and advantages, its seasonal features and probable duration, the rates of pay and the average output for piece, day, and week work, and any occupational hazards involved.

On the side of the worker, it is important to understand the needed mental and temperamental qualifications. Ability to learn—to adjust oneself to the conditions imposed by a given job, to master its difficulties—is generally considered the most necessary qualification, while general intelligence and information come next.

Character values are more difficult to appraise than are other qualities; yet they are significant. Link says:

> In the vast majority of cases, the moral traits that an individual displays are determined by two variable conditions. These conditions are first, a liking for a certain kind of work for its own sake; and second, a liking for the work for the sake of the rewards which it makes possible.[1]

Today practically the only character estimates of value are possible after a period of actual work on the job.

Written specifications can never be a substitute for the interviewer's concrete knowledge about the jobs for which he hires; but, as an organized body of data, they have considerable value, especially in the view of the job's possibilities they help to give the applicant.

Requisitions for Help.—It is essential to any standardization of employment procedure that the interviewers have sufficient time in which to carry on their work. This should mean, practically, that they are informed of a department's needs at least twenty-four, preferably forty-eight, hours in advance. Where skilled people are in demand, or where an increase in staff is taking place, an even longer time is necessary. Delinquent foremen are usually brought to terms on this matter by the establishment of a rule that requisitions calling for help in advance will be honored prior to those calling for assistance at once. There will, of course, always be emergency calls. Yet

[1] Link, Henry C., "Employment Psychology," p. 205.

the effort should be to get department heads to give adequate notice ahead of positions to be filled.

The Waiting Room.—Companies which wish to secure the good will of prospective employees will see to it that the atmosphere in which they are hired is cheerful and as unrestrained as possible. First impressions are too important for any opportunity to be lost to start the worker right. The waiting room should for this reason not be hidden off in some out-of-the-way corner of the building. It should be accessible to the street; it should have air and sunshine; it should have seats for applicants. Usually separate waiting rooms for men and women are desirable, and often separate rooms also for skilled, unskilled, and office workers.

Adjoining the waiting room should be the interviewing booths, so arranged that each applicant can enjoy a completely private conference with the interviewer. The equipment of these booths should be simple—a chair for the interviewer, one for the applicant, and a small table located at one side. It is an essential part of standard practice in selection that the interview be private. By this one improvement alone, many companies could greatly improve their hiring methods and results.

The Preliminary Interview.—Where any considerable volume of hiring is done and where standards of age, sex, appearance, etc. are definitely established, many factories and stores find it economical to have one good contact person devote the necessary time to a general preliminary "once-over" of applicants, a weeding out process which will leave only the really promising and possibly useful candidates for examination by the regular interviewers.

Another arrangement for saving time is to have this preliminary interviewer or some other attendant supply application blanks to be filled out in advance of the interview. There is, however, no general consensus as to whether it is better to do this before or during the interview, since the latter method supplies a natural basis for the interviewer to see with how much intelligence the candidate discusses and fills out the form in his presence.

Interviewing Blanks.—If the interviewer is favorably impressed and wishes to employ the applicant, he will use an information blank on which to write the data that he has gathered. This either takes the form of an application or an interviewer's

blank, or a combination of both. Such a form should set forth the name, address, telephone number, age, nationality, education, former experience, position desired, and other personal items. Usually the applicant is asked to fill this in. The part of the blank filled in by the interviewer is so arranged as to contain his estimate of the applicant together with the results of physical, mental, skill, and trade tests given.

The Interview.—In the interview the applicant should be met as far as possible as an equal. He should be put at ease and not be hurried. He should be provided with an interpreter whenever necessary. Questions which are too direct or too bluntly put are to be avoided at the outset. A fair chance for each applicant to present his own case is essential. The interviewer should bear in mind the fact that the intelligent candidate may tend to underestimate his ability while the opposite is generally true of the less intelligent. The aim should be to have the process of selection one of self-analysis, self-direction, self-placement, or self-elimination.

There is suggestive value for a point of view in interviewing in Mr. Link's prophecy that:

> It will undoubtedly be commonly recognized in time that the entire aim of employment psychology is to attain the point of view of the applicant and to further his interests by selecting him for the work which he is best able to do and at which he will be of greatest value to society and to himself.

The examiner who gets this idea of the purpose of his work will inevitably be courteous and patient. He will have regard for the natural reserves of applicants and will do nothing to impair their sense of self-respect and self-esteem.

The requirements of the job and the standards of employment in terms of age, sex, strength, special abilities, etc. should be so set forth to the worker that he can draw his own inevitable conclusions as to his fitness for the position. The applicant for whom there is no opening should be so treated that he himself is conscious of his own inability to qualify, and in removing himself can testify that the company is one in which employees are carefully selected and given every opportunity. Increasingly, corporations make it a rule to treat rejected applicants with such consideration that their good will is not only retained but increased.

In concluding negotiations with an applicant, a most necessary measure is to give him an honest evaluation of the job. Overselling the job, misstating its opportunities for advancement and pay, create only ultimate dissatisfaction. The physical environment, occupational hazards, hours, and causes of discharge should be truthfully pictured. Many times the overselling of a job could be checked if the applicant were shown the job specification sheet himself, and encouraged to ask questions of the interviewer. Even better is the procedure of having the applicant see the work itself, so that he may form his own estimate of it. This practice is gaining in favor and use.

It would be gratifying, if it were possible, to make some scientifically valid statement at this point regarding the reliance which can be placed upon the interviewer's estimate of the applicant as derived from his impression of the applicant's facial expression or photograph. Careful scientific experimentation looking to establishing a correlation between facial characteristics and fundamental qualities has proved that such judgments are practically valueless; and the use of one or another formula of "character analysis" is not warranted as likely to yield accurate judgments.[1]

Inevitably, the interviewer will form an impression of the applicant derived from the observation of a number of items, such as the applicant's neatness of appearance, the degree of self-assurance with which he conducts himself, his manner of conversation, etc.; but the fact remains that all of these items do not seem, as a result of scientific tests, to be truly diagnostic in value.

Special Tests.—As soon as the interviewer has stated that the applicant is a likely prospect for employment, the next step in the procedure is the giving of whatever special tests have been adopted. The first of these which should be given is the physical examination, since, if the applicant does not qualify on this score, there is no need to apply further tests. The interviewer, before conducting the prospective employee to the office where physical examinations are held, should explain the nature and purpose of the several tests which the applicant is being asked to take. The emphasis here should be upon the constructive service of the tests to the applicant in helping both the company and himself to be sure that he is being placed at work for which he is best

[1] Laird, D. A. "Psychology of Selecting Men," Chaps. VII–IX.

fitted, both physically and mentally. It is so literally true that such tests, if properly used, have as much value for the worker as for the management, that everything possible should be done to have him approach the test procedures with as much assurance as possible.

A certain amount of experimentation has been carried on in the last half dozen years with different types of tests. These may be divided as follows:[1]

1. Proficiency tests:
   (*a*) Educational tests.
   (*b*) Trade tests.
2. Aptitude tests:
   (*a*) General aptitude tests:
      (1) General intelligence tests
      (2) Mechanical aptitude tests.
   (*b*) Special aptitude tests:
      (1) Physical tests
      (2) Motor tests
      (3) Sensory tests
      (4) Tests of other special mental functions.
3. Tests of character and temperament traits.

In addition to these, there are rating scales for the evaluation of a person's specific qualities either absolutely or in comparison with others.

The first question which arises regarding any of these tests is as to the surrounding conditions which will justify their development and use. On this point the first question to be answered is whether special capacities can be identified which are peculiarly necessary at a given job, and which can be tested accurately enough to determine the applicant's probable fitness. If upon experimentation it is found that tests are devisable which have true diagnostic value, the presumption is in favor of the tests being worth installing. Under these conditions their value to a company increases with the number of employees who have to be hired.[2]

[1] KORNHAUSER, A. W., and KINGSBURY, F. A., "Psychological Tests in Business," p. 20.

[2] GRIFFITTS, CHARLES H., in "Fundamentals of Vocational Psychology," p. 160, gives another view on this point: "Unless the possible returns in reduced turnover, increased production, decreased breakage, decreased proportion of 'seconds,' decreased absenteeism, etc. are considerably greater than the expense or debit side of the account, the tests should not be used."

Application of tests has been relatively slow in coming, because their adaptation to business use is still highly experimental. It requires, at least in its initial stages, a high degree of psychological training and skill, and calls for fairly uniform test conditions.

In fact, today there are apparently not more than about fifty companies making use of special tests, and these are, in general, the larger companies which have been able to experiment under the direction of trained psychologists. It is therefore too early to hold out to managers too confidently the value which tests thus far devised can have for them in the immediate future. Their first duty in this direction is rather to realize the limitations under which psychological tests labor at present, and not to expect too much from them.

In this connection a number of statements can be made about all of these tests which should be borne constantly in mind:

First, the test should be devised, revised, and initially, at least, administered only by people with an accredited psychological training.[1] The identification of the special capacities which it is desired to test and the formulation of tests truly calculated to diagnose these capacities are highly technical problems; and only as the operation of tests is carefully watched is it possible to be sure that they are continuing to have value in disclosing the qualifications upon which a judgment is desired. It is possible, however, especially where the test is of such a character that it can be given to a number of people, *i.e.*, a so-called group test, conditions can usually be so standardized that giving and grading the tests eventually can be handled by a much less expert person.

Second, it should be understood that these tests should *not* be considered as absolute and final evidence regarding the fitness of the applicant. They are at best, under the present development of psychological testing, only indicative in value; and are to be considered only as partial evidence supplementary to the facts disclosed by the interview, including such items as the worker's previous industrial history, the interviewer's estimate, etc.

[1] The Psychological Corporation, Grand Central Terminal, N. Y., is a non-profit-making organization, composed of the leading psychologists of the country, which stands ready to supply information both about consultants in this field and about test procedure itself.

Intelligence Tests.—General intelligence or mental alertness tests are now available which throw considerable light upon an individual's mental alertness, speed of learning, and mental capacity.[1] There appears to be usually a correlation between the qualities reflected in these tests and that effectiveness in action which is commonly spoken of as "ability to get on in the world." The tests "do not measure loyalty, bravery, power to command, or the emotional traits that make a man carry on. However, in the long run, these qualities are far more likely to be found in men of superior intelligence than in men who are intellectually inferior."[2]

Within the definite limits in which mental alertness tests claim to be valuable they have proved exceedingly useful; but those limits should be kept clearly in view. The tests appear to offer little evidence as to the individual's total intellectual equipment. They are not an index to specific mental traits nor to moral characteristics like persistence, thoroughness, honesty, loyalty, etc. "No psychologist has as yet presented us with such a complete and comprehensive analysis of the mental aptitudes that are essential for any single occupation."[3] It may be added that even if such aptitudes were clearly known, methods of measuring them still remain to be discovered.

Nevertheless, intelligence tests enable the detection of applicants below par or above par mentally. One value lies in revealing whether the candidate possesses the minimum level of mental ability required for success in a special position. Such defined limits of intelligence levels may aid in reenforcing the selector's

[1] It is beyond the scope of this chapter to describe the substance and methods of using intelligence tests. The reader is referred for adequate treatment of this technical problem to:

"Personnel Work in the U. S. Army," Committee on Classification of Personnel in the Army, War Department, Washington, 1919.

"Army Mental Tests," Committee on Classification of Personnel in the Army, War Department, Washington, Nov. 22, 1918.

"The Personnel System of the U. S. Army," vol. 2, Chap. X, Washington, 1919.

Scott and Clothier, "Personnel Management."

Kornhauser and Kingsbury, "Psychological Tests in Business."

Griffitts, Charles H., "Fundamentals of Vocational Psychology."

[2] "The Personnel System of the U. S. Army," vol. 2, p. 228.

[3] Whipple, G. M., "The Use of Mental Tests in Vocational Guidance," *Annals*, p. 196, American Academy of Political and Social Science, Philadelphia, May, 1916.

decision in doubtful cases where the choice lies between several otherwise equal applicants.

It is, of course, first necessary to establish beyond doubt the fact that a given job is best done by persons within a defined range of intelligence scores. That this will be increasingly possible if the study is made with some care seems likely in the light of the few experiments already made.

> To a degree not possessed by other instruments of the kind, mental alertness tests seem to possess those prophetic qualities with which industrial managers desire to equip themselves as soon as science makes it possible.[1]

A further use to which these tests can be put in large companies is pointed out by the same writers to be in classifying students in company schools in order that instruction may be properly adapted to a group's mentality.

It is probably true of many types of work that the selection of the candidate who, his other qualifications being equal, has the higher intelligence test score, is the wise selection. Of two workers who test equally at a trade test, the one who excels on the intelligence test would probably be the preferable worker; and he would also probably make the better gang leader or foreman. Of two assistant foremen whose ratings in technical knowledge, ability to handle men, and other desirable characteristics are equal, advancement to foremanship would probably be wisely given to the one with the higher intelligence test score.

The general intelligence test is but one source of data in the selection process. Its widest use thus far has been in connection with clerical and executive work. Yet it is not unreasonable

[1] "Personnel Management," p. 281. Over against this statement may be placed that of KORNHAUSER and KINGSBURY, "Psychological Tests in Business," pp. 127–128: "The value of general intelligence tests for factory occupations is not clear. A number of writers have emphasized the importance of eliminating the feeble-minded and very dull applicants by means of intelligence tests, as well as the possibility of selecting for promotion individuals of special alertness. Actual investigations demonstrating these uses of tests are lacking. Of the few studies that have been reported, some (BURTT, BURR, WEMBRIDGE) have found intelligence test scores of value, while others (LINK, OTIS, several unpublished studies) have obtained opposite results. These differences may well be due to the fact that the groups tested and the nature of the work were very different in the several cases. It appears reasonable to suppose that in certain situations intelligence tests for factory workers are decidedly worth while."

to hope that in the future these tests will prove a helpful means of assuring a discriminating distribution of workers among the various occupations.

Trade Tests.—There is good reason to make use of trade tests as indices of working fitness where the work in question has a defined body of knowledge and methods with which the worker must be familiar. This practically limits their use to the truly craft occupations.

A trade test may be of three types. It may be a set of trade questions to which specific and correct oral answers cannot be given by the applicant without a degree of trade experience; it may take the form of pictures from which the applicant identifies and names parts or tools; it may be a performance test at some particular part or model of the work; or it may be any combination of these.

Trade tests are devised so as to enable the examiner to classify the worker into one of four grades of trade skill—the novice, apprentice, journeyman, and expert.

Success in the use of this type of test depends largely upon the intelligence with which it is administered. The technique of trade testing has, however, been so standardized that today a trade test can be applied, marked, and rated in a short time, even by one relatively unfamiliar with the subject. When carefully used, the tests are of real help in classifying craftsmen. One of the points of standing controversy wherever craftsmen are employed is the degree of their skill. A method of differentiating the journeyman from the apprentice and the expert from the journeyman which workers and managers agree to be reliable is greatly needed, and would, if jointly controlled, eliminate considerable unnecessary dispute about the worker's trade standing.

Summing up for industry the value of trade tests on this point, Lieutenant-Colonel W. V. Bingham gives the following interesting and authoritative judgment:

> In a majority of the trades the oral tests yielded more accurate differentiations of proficiency than did the performance tests. In other words, the journeyman and the expert differ from the apprentice not so much because they have greater manual skill and dexterity as because they excel in judgment, technical information, or trade knowledge. The obvious implication is that dexterity and manual facility in doing a job are relatively less important than knowledge of when to do it or which

tools to choose. No generalization more suggestive for industrial education has emerged from our work than this, that superiority in trade proficiency resides more often in the head than in the hands.[1]

The following conclusion of Lieutenant-Colonel Bingham is still a correct estimate of the use made of trade-test material in interviewing:

Most employment departments will not care to undertake this program, but instead they will come to the use of an abbreviated form of oral examination which we may call the technical interview. These technical interviews will resemble oral tests in that they will consist of precisely such questions as have been found most useful in the oral trade tests. But they will not be administered with such rigor of procedure, nor will they yield a numerical rating. They will serve, however, to clarify the interviewer's opinion of the candidate's ability, and will be a convenient and very useful first aid in employment and placement.[2]

A further fair statement of the present status of trade test activities is presented in the following:

Probably the chief work on trade tests since the war is some unpublished research of The Scott Company. Attempts were made to adapt army trade tests to industrial needs in several trades and to build new tests in several other trades. Some degree of success was achieved, but perhaps the most definite result was the conviction that trade tests can be most successfully developed only through the cooperative efforts of a number of companies. It also appeared that for many industrial situations unstandardized or partially standardized trade interviews may be more useful than formal tests. Adaptations of trade tests to the selection of department-store salespeople, according to their knowledge of merchandise, were also developed. These met with considerable success.

All the work that has been done with trade tests, both in the army and in industry, has impressed investigators with the great possibilities of progress in this direction. Many optimistic discussions have appeared which emphasize the desirability of extending to industry the army trade test methods . . . To what extent the optimism will be justified regarding standardized trade tests remains at present an open question.[3]

[1] Bingham, W. V., "Measuring a Workman's Skill," *Bull.* 30, pp. 14–15, National Society of Vocational Education, New York, June, 1919.

[2] Bingham, W. V., "Measuring a Workman's Skill," *Bull.* 30, pp. 14–15, National Society of Vocational Education, New York, June, 1919.

[3] Kornhauser, A. W., and Kingsbury, F. A., "Psychological Tests in Business," pp. 115–116.

Special Abilities Tests.—For practical purposes, the other tests which are in use may be grouped under the general title of special aptitude or special abilities tests. There are in this group tests of strength and endurance,[1] tests of motor control and dexterity,[2] and tests of sensory capacity.

A good sample of the type of experimentation which is going forward today is indicated in the following paragraph:

> During the past 3 years, 1021 women applying for employment at the West Lynn Works of the General Electric Company have been given a test for finger dexterity. Apparatus for the test consists of 300 brass pins and a flat plate, in which 100 holes are drilled part way through. A candidate, using the right hand only, takes the pins from a tray in which they are piled loosely, and places three in each drilled hole as rapidy as possible. Individuals differ widely, the fastest finishing in less than 6 minutes, while the slowest require from 12 to 15 minutes.[3]

Tests of character and temperament traits cannot yet be said to have passed beyond the laboratory and experimental stage. The conclusions of a careful study of the use of tests given an accurate picture of the present development of the art. Kornhauser and Kingsbury say:[4]

> In the case of office occupations, the chief accomplishments have been: (1) The development of successful tests for clerical workers, especially general intelligence tests and tests of achievement in spelling, arithmetic, etc.; (2) the development of successful proficiency tests (trade tests) for typists and stenographers; (3) promising pioneer work on aptitude tests for typing and stenography and for computing-machine operating; and (4) collection of evidence as to the value of intelligence tests for indicating the alertness and future possibilities of various classes of office workers.
>
> Psychological tests for factory occupations have made less progress. Some good beginnings have been made, however, prominent among which are the following: (1) The army construction of trade tests for a large number of occupations; (2) the tentative conclusion that intelli-

[1] Griffitts, Charles H., "Fundamentals of Vocational Psychology," Chap. X.

[2] See Griffitts, *Ibid.*, Chap. XI, and Link, Henry C., "Employment Psychology," Part I.

[3] Hines, Mildred and O'Connor, Johnson, "A Measure of Finger Dexterity," *The Journal of Personnel Research*, p. 379, January–February, 1926.

[4] Kornhauser, A. W., and Kingsbury, F. A., "Psychological Tests in Business," pp. 139–140.

gence tests are useful for selecting within some groups of factory workers, but are worthless with other groups; (3) the development of a few successful aptitude tests for particular occupations (for example, Link's work and Muscio's); and (4) promising attempts at the construction of aptitude tests for a number of other occupations.

Little in the way of positive progress has been reported in the test selection of salespeople. The research that has been done shows that: (1) Intelligence tests sometimes are useful and sometimes are not; and (2) results of possible value may be obtained through further investigation with tests of non-intellectual characteristics and interest questionnaires. Intelligence tests are probably valuable wherever other qualities —social and temperamental—can be assumed to be satisfactory. *Other things being equal*, greater intelligence is an asset for salesmanship.

In several other occupations test research has made considerable progress. Thus: (1) Good pioneer work has been reported in special aptitude tests for telegraphers, telephone operators, street-car motormen, journalists, aviators and other military occupations, musicians, and others; (2) intelligence tests have been used with some measure of success among policemen, waitresses, professional-engineering students, and a number of other groups more or less definitely vocational; and (3) army trade tests have been constructed for a variety of occupations.

Our conclusion as to the use of the several types of tests is a conservative one. Large as is the eventual promise of such refined methods of selection, managers will only injure a fundamentally sound idea if they apply it too quickly and with too much confidence in the immediate results. This is a field in which expert guidance is essential, and in which results will come slowly.

Conclusion Regarding Selection Procedure.—The student may conclude from this brief review of selection methods that there has been substantially little progress in the development of a scientific procedure inasmuch as the possible use of different types of tests has been stated with such caution. If the possibilities of applying tests have not been as fully realized as managers were led to expect a few years ago, it is nevertheless true that there has been in almost every corporation the opportunity for a great improvement in all the other aspects of selection technique.

Experience is conclusive that there is a minimum of standards of selection procedure which, if observed, will do much to improve the existing technique. In short, any company which will make a discriminating selection of interviewers, give them ten

minutes per interview rather than two, have the interview private and in cheerful surroundings, give the worker an opportunity to find out everything possible about the job, and will allow the interviewer to follow up the new employee once or twice after he is at his work will find that placement is being accomplished with much greater satisfaction both to foremen and to individual employees.

In conjunction with these minimum standards of procedure, different types of tests, when their worth is proved, then can be gradually introduced as supplementary indications of fitness.

Use of References.—In factory employment little reliance today is placed upon references, and they are infrequently looked up. This is somewhat less true of such commercial employments as store and office work; but, even here, they are decidedly subordinate in importance. The chief reason for this is, of course, that such letters are found to mean so little; they are given on inadequate evidence; and their testimony is not always the whole truth.

The Rejected Applicant.—When there is no intention of hiring a man, it is poor practice to permit him to fill out an application blank. It gives him a hope for which there is no foundation, and clutters up the file with useless cards.

Some employment managers, when they are obliged to turn promising men away, attempt to secure work for them in other plants in the vicinity. In fact, in several industrial centers it is the custom for the employment managers to telephone to each other the first thing in the morning to discover what type of help is needed. They then make an effort to direct the right man into the right position whether in their own factory or in that of another firm. Helpful exchanges often take place. Such cooperative procedure in selection and follow-up has great possibilities and should be fostered wherever possible.

The desirable objective is, of course, that no ill will be incurred in the working-class community because of crude or inconsiderate methods used in informing applicants that their services are not needed. If the process of elimination is carried on with as much care as it should be, it should be possible to make rather than lose friends for the company by the method employed.

Authority in Selection.—The astute personnel department will try to see that no question is ever raised in connection with the hiring of an applicant as to whether the foreman or the employ-

ment manager has the final word. Practically speaking, because the foreman must work with the new worker, he should feel confident of the newcomer's ability to make good. Therefore, if his judgment is strongly against taking on a person it would be bad policy to urge the matter. Because the personnel activities are to be construed as largely service activities for the line departments, there should be no difficulty with this interpretation of relative authorities. Just as a foreman may safely be allowed to discharge from his department—but not from the company's employ—so he may be allowed to say whom he cares to employ in his department.

Introducing the Worker to the Plant.—After selection, the next distinct step in employment procedure is the introduction of the worker to his position. This also is a function of the employment department. Upon the manner and spirit of this introduction the employee's first impression of his work and of his employer in large part depends.

The first step in this introductory process may well be an oral explanation of the company's history, tradition, and policies. For this purpose motion pictures are also sometimes employed. Some firms, in addition to distributing an informational booklet, go over its contents with groups of new workers in order to make perfectly plain the material it contains. This method of supplementing a reading which may never take place or may be hurriedly done is highly desirable. With any group of employees, it is a mistake to think that the printed page can of itself take the place of verbal communication.

The information and regulations contained in the booklet cannot be too explicit. There should be no occasion for a misunderstanding about pay, hours, shop rules, safety regulations, provision regarding tardiness and absence, overtime, training, and insurance. The average worker also wants to be told about the opportunities provided for social intercourse and self-expression through educational or recreational activities.

After the items on all these points have been made clear in conversation, the booklet which repeats in full the contents of the talk, should be distributed. It should be stamped with the employee's name and number and be used by him for reference.

The new worker is then ready to be personally conducted through the plant or store to his work place. In larger companies

special equipped messengers are available to show him the lunch, rest, and hospital rooms, and assign him his locker. They also point out the location of toilets, bubblers, exits, and fire escapes; and explain the use of the time clock. Finally, they take him to the department to which he has been assigned.

The new employee should be left with the foreman only when the latter has time to give him the proper attention.

Specifically, the foreman should be introduced to the newcomer by an intelligible interchange of names. The foreman might then put the worker in charge of an assistant or of an instructor, who would in turn be responsible for making the worker known in a friendly way to his working associates. They should be told his name, and he be told theirs.

From this point the procedure usually becomes a matter of training. Some firms take the new worker on a visit through the plant in order that he may know what he is helping to make and see the importance of his job in relation to the whole process. Some firms put the employee immediately in charge of a job instructor, and others also assign a fellow-worker to the new man to help familiarize him with the procedure of the plant—to act as a "big brother," or "sponsor."

Indeed, some plants make it a practice to have a higher executive—a general foreman or an assistant superintendent—introduce himself and chat a few minutes with each new employee in the departments under him. The foreman himself can usually well afford to give some encouragement to the novice once or twice a day during the first week.

To have the worker enter upon his job thus with the manifest sympathy and knowledge of the entire organization, not only eliminates waste of time and misunderstanding, but it tends to assure in the worker's mind a positive conviction that he is really wanted and welcome. Good manners and courteous treatment have a value in industry which is no less significant than it is in social intercourse. It is a value that makes true courtesy worth striving for and worth studying to achieve.

Following Up the New Employee.—Careful follow-up methods are essential to round out properly a minimum program of selection and placement.

The importance of this follow-up is hard to overstate. The largest percentage of labor turnover occurs during the first three months. The worker is at the outset in peculiar need of friendly

advice and attention. To make the follow-up successful, the employment division, foremen, and instructors must all cooperate. However, the actual work of checking up the success of the placement is usually best done by the interviewers, who in well organized companies are given afternoons or the last days of the week to go and talk again with those whom they have selected several days before.

The attitude with which all this follow-up should be done should reflect a spirit of friendly, personal interest. This cannot be achieved if it is not consciously sought throughout the organization. The foreman alone cannot restore it; the personnel department alone cannot restore it; nor the fellow-employees acting alone. The process of friendly introduction and of coming to feel at home requires the sincere and thoughtful cooperation of all in the management and of all the men.

In relation to subsequent possible transfer and promotion, the follow-up has another task to perform. It estimates a man's all-round fitness for his job, studies his attitude, and measures his progress. If the interviewer is found to be mistaken in his original placement, he assigns the worker to a position for which he is better fitted.

In fact, there are companies which make it a practice to have a follow-up interview with each employee every six months. The result is not only a positive saving of time and expense in the induction of beginners, but also a longer tenure of office by more efficient and happier employees.

This will be recognized as the more important if one realizes that the successful adjustment of worker to job is not a static but a dynamic fact. As the worker finds his attitude toward his work change for any reason, it is of great importance that he have a chance to talk over his growing sense of maladjustment with someone from the employment office.

Rating Scales.—The rating scale, although not a device for initial selection, may well be considered here, since its function is to throw light on the relative fitness of the members of a group at a given position. Because it implies close acquaintance with the individual's work, it cannot be used to determine the fitness of new and untried executives or new manual workers; but in selecting from among a group of inspectors or instructors the best one for a foreman's portion, in selecting an assistant foreman from among a group of craftsmen, in determining the

relative fitness of a group of foremen, rating scales have been used in certain cases to advantage. Although here, too, it should be stressed that sole reliance on the results of these would be inexpedient.

Rating scales are of different types—the man-to-man comparison, the numerical, the graphic, and the adjective rating. There is not as yet sufficient experience with the use of these several types to offer convincing evidence as to their relative merits. The field is in the same experimental stage that is found in connection with mental and special abilities tests.[1]

The Social Importance of Standards of Selection and Placement.—Never has the need of wise and humane methods of selection and placement been more imperatively felt than at the present time when the importance of full conservation of all the human factors in production is appreciated. This chapter has suggested simply minimum standards—standards below which no company's procedure of selection should fall and which involve no great expense. Individual companies are, however, enlarging upon this common-sense procedure in valuable experimental ways.

What the interviewer is really doing in the selection process is to distribute personal power. Progress in industry is from one point of view registered in the prudent expenditure of personal energy and wise direction of individual talents. It is, therefore, not only good business but a public duty for the interviewer to adapt the diverse talents of applicants to the opportunities in industry in the most humanly scientific manner possible. It is his important contribution to a genuine industrial efficiency.

Control of Employment Standards.—The discussion of selection has proceeded on the assumption that employment standards were immutably fixed by the management. Employment standards are those minimum requirements which are determined upon as necessary for the applicant to measure up to at each job if he is to be eligible for it. The items would include, for example, age, sex, previous industrial and trade experience, and in certain cases special strength, good hearing, or good sight, etc. From various statements it may be inferred that managers alone have

[1] Evidence for and against is offered in two addresses before the American Management Association Annual Convention of 1926, by Dr. Max Freyd and John A. Varney. Both addresses have been reprinted by the association.

determined what all these standards should be; this is undoubtedly true today in the majority of companies.

Standards of selection are likely to be more and more subject to joint determination and control. Already, wherever the workers are strongly organized they have something to say about these. The serious problem is to see to it that their determination takes place on an intelligent and socially satisfactory basis. For if they are too rigid, the supply of trained workers may become so scarce that they can command a relatively too large reward for their services, or good workers may be barred from socially necessary work.

Moreover, one of the employer's rightful objections under many union shop agreements is that employment standards are in reality set for him by the unions which all must join who seek employment. The remedy in such cases may not be easy to apply, but it seems reasonably apparent.

The remedy is to make employment standards specifically a matter for joint negotiation; and this negotiation, if it is to be any improvement on arbitrary decisions either by managements or by unions, must be based on facts which both admit. Such facts as are necessary are the product of job analysis and are unobtainable without job analysis. How this analysis is to be carried on, what matters it should study, what results can be expected—these are questions whose consideration is deferred until a later chapter.

Meanwhile, the conclusion is that employment standards and selection methods should be based on careful study of the work to be done, and upon agreement between management and men regarding those standards and methods which shall have force.

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CHAPTER VII

HOURS AND WORKING PERIODS

Consideration of methods of selection might reasonably be followed by a statement of the terms of employment at which new workers are engaged. Wages and hours constitute, of course, two of the major terms of employment; but our exposition of payment will be more illuminating if, instead of coming now, it follows our study of job analysis. We shall therefore consider only hours and working periods here; and then proceed to discuss the health of the worker and the conditions of the factory into which he enters—in other words, his working conditions.

The treatment of the hours problem here will not attempt the impossible. There is today no scientific data at hand to *prove* what length of working day is the most "productive" in a sense which takes account of both output and human factors. Even if there were such data, it must be remembered throughout the discussion of these matters that, since working hours are in practice a matter for determination by a negotiating process, other considerations than science help to determine the length of the working day and week actually adopted. The range of the bargaining discussion can no doubt be somewhat narrowed by joint possession of the facts. For that reason what seem the relevant elements in the problem will be stated. The purpose is to enumerate the several topics relating to the time factor upon which *some defined policy should be adopted*, and to suggest briefly the consensus of recent opinion and practice upon these topics.

A second prefatory word will save repetition as we proceed. Policy on all of the time factors should be clear, explicit, known to all workers, and where possible passed upon in an organized way by the workers' representatives. Acceptance and satisfactory administration of all the following items will in most cases be better assured if there is prior conference and joint agreement with the workers upon the terms adopted. Just because other than absolute considerations enter into the determination of working periods, just because individual and group

desires, conventions, and habits help to mold sentiment on this question, it is good business to have such an explicit agreement.

In discussing hours managers should remember that the worker is a physico-chemical engine, which requires time in which to renew wastage by sleep and recreation; that the worker is possessed of a human nature which demands expression for a known variety of native impulses; that the worker is a member of a community with responsibilities toward family and state which he should assume and have sufficient time, energy, and intelligence to carry out worthily. Without the broader approach which realization of these factors brings, managers will be in danger of seeking decisions about hours on too narrow a basis.

Explicit limitation of working hours for the executive staff is important, especially for the foremen, who are usually confined closely to their departments during every minute of the working week, and are likely to suffer from the narrowness which such confinement brings. Frequently foremen, assistant superintendents, and technical experts are necessarily in the plant longer than anyone else, and their long hours of continuous application contribute not a little to an over-fatigue which dulls the fine edge of their executive capacity.

Hours of Work per Day.—That determination of the number of hours of work per day is not based on purely scientific considerations may be judged from the wide divergence in practice. While the 12-hour day still persists in a few continuous industries, the 10-hour day is retained by others. The 9-hour day is still widely used in many plants, and the 8-hour day is constantly gaining momentum in the industries where labor organization had not heretofore enforced it.[1] In the industries where labor unions are strong, the 7-hour day is in certain cases an actuality and the 6-hour day a demand.

On the whole the evidence tends to show that under present conditions in most industries an 8-hour day results in a high, if not the highest, productivity. A moderate amount of leisure is thus obtained; the plant is in operation during the daylight hours nearly the year through; the weekly output has been shown in well-managed plants not only not to decrease, but actually to increase, in a reduction from 9 to 8 hours.

[1] The National Bureau of Economic Research estimated in 1922 the average hours per week at 50.3 when every type of industry is considered.

Maintaining the Output.—However, so much stress has been laid upon the fact of reduction of output with any further reduction of hours, that it is essential to point out that the number of hours worked is only one of many factors affecting the amount of output, and in nine factories out of ten *nearly all of the other factors are crying out for correction.* The complex roots of efficiency are indeed so infrequently understood, analyzed, and controlled that one of the most astute of America's mechanical engineers dares to be quoted as saying that "with production simplified and power utilized to its fullest capacity, we could probably produce all we want in less than 6 hours."[1] Even allowing for a degree of rhetoric in these sentences from a prominent engineer, they point a moral to which all students of the science of management can at once subscribe. Indeed, another engineer says that our industry runs ordinarily at about 40 per cent efficiency, because of incompetency in factory management. The point is that managers have usually found themselves able by better methods to cope successfully with curtailments in working times which were at first decried as unreasonable. Therefore, in favoring a liberal policy in the reduction of hours, we are clear that no corresponding reduction in output will result, if managers and men are together making the best possible use of the equipment.

There is, of course, a point below which a reduction of hours would affect output adversely, but that point is not yet reached in practice; and meanwhile the pressure of organized labor and legislative enactment for a shorter working week supplies a needed stimulus to managers to take their administrative responsibility seriously.

Where objections to the shortening of hours come from the workers themselves, the reason in almost every case is reluctance to have income curtailed. Reductions in working hours which do not simultaneously provide an increase in pay rates to keep the weekly income intact are a doubtful boon. Usually, however, the change in hours is accompanied by an equivalent wage rate increase.[2]

[1] Polakov, Walter N., in "The Great Change," by Wood, C. W., pp. 100–111.

[2] "The Twelve-hour Shift in Industry," by The Committee on Work Periods in Continuous Industry of the Federated American Engineering Societies, p. 214, states:

Hours of Work per Week.—In practice the 8-hour day results in a 44-hour week wherever the workers are strong enough to press their claim for the Saturday half-holiday. This arrangement of working hours is gaining wider and wider acceptance. The value of the half-holiday is felt to be great wherever it is adopted, since it provides a continuous period of week-end respite, which is physiologically and socially valuable.

Indeed, the use of a 40-hour week in which work runs 8 hours a day for 5 days is gaining ground. Originally adopted in some corporations as a summer policy, its adoption as a year-round measure has made impressive headway.[1] The benefits of a 2-day holiday to management and men alike are recognized. Machine and plant maintenance is better handled under this arrangement; less heat is required; the short and relatively unproductive Saturday is eliminated; the workers are able to have gardens and do more work for themselves around the house.

The 6-hour Day.—The movement for a 6-hour day began in earnest in this country with its endorsement by the American Federation of Labor at its 1919 convention. In England this shorter day has already been advocated by a prominent soap manufacturer. He has said:

> Modern conditions of production requiring costly plant, machinery, and factory buildings make it obvious that such division of the 24 hours

"In changing to three shifts, hourly wage rates are most commonly increased about 20 or 25 per cent.

"If wages are rapidly rising, the increase may be 50 per cent (making daily earnings for 8 hours equal to those previously paid for 12 hours). But only part of this increase should be attributed to the shortening of hours. If wages are going down, or if there is unemployment, the day may be reduced to 8 hours and the hourly rates left unchanged. In general, industries which are newly on three shifts pay somewhat higher hourly rates than they would pay if they were on two shifts.

"In the long run plants which remain on 12 hours are compelled to pay substantially as high rates per hour, that is 50 per cent more per day, as their neighbors which are on 8-hour shifts."

[1] The Merchants' Association of New York reported in 1923 that out of forty manufacturers replying to a questionnaire regarding experience with a 5-day week "three reported that they had used it only as a summer plan and three only as a slack period plan. Among the thirty-four who had tried it out as a permanent all-year-round plan, sixteen expressed themselves as well pleased with the results, fifteen were strongly opposed to it, two were in favor of it only when operating on a weekly schedule of 48 hours or less, and one took a neutral attitude."

must be made as will (whilst utilizing the mechanical utilities to their utmost capacity so as to get as large an output from plant, machinery, and mechanical utilities as possible) tend to relieve the human element from fatigue. Only by so doing can we reduce to a minimum all overhead charges for interest, depreciation, and rent, etc.

It is obvious from the above that when our modern industries are run on a less fatiguing system of say two shifts each of 6½ hours with half an hour off for meals (making 6 working hours in all per day), the efficiency of the worker by thus avoiding fatigue can be increased by at least 33 per cent., and consequently that as much work can readily be done in 6 working hours as under present conditions is done in 8. But in addition to the ability of the employee to produce as big an output in 6 hours as is now produced in 8, there would be the added advantage that the plant, machinery, etc., would be running for 50 per cent., longer time, viz., 12 hours instead of 8, which running of machinery would reduce the overhead charges proportionately and increase the output enormously.[1]

The arguments for what may seem at first to be a drastic change deserve careful examination. Lord Leverhulme speaks, of course, from the point of view of a continuous industry (soap-manufacturing) when he says:

> We must have a 6-hour working day for men and women and by means of 6-hour shifts we must work our machinery 12, 18, or even 24 hours.[2]

The use of two shifts of 6 hours would mean a 50 per cent greater utilization of plant than is now secured on the 8-hour day. This would mean reduced overhead and fixed charges. This is not said by way of advocacy of immediate adoption of the 6-hour day. It is said simply in explanation of the possible values of a movement which, while it may be widely opposed as economically unsound or impossible, should yet be understood as the sober business proposal of a successful manufacturer.

Overtime Work.—The evils of a policy which deliberately encourages overtime work are grave. The fact of overtime tends to lessen the working pace in the normal hours; it increases

[1] "Industrial Health and Efficiency," Reprint of Final *Report* of British Health of Munition Workers' Committee, U. S. Bureau of Labor Statistics, *Bull.* 249, p. 83.

[2] Lord Leverhulme, "The Six-hour Day and Other Industrial Questions," p. 16. For a careful statement by him to his board of directors as to the arrangement of hours under the 6-hour shifts, see U. S. Bureau of Labor Statistics, *Monthly Labor Review*, vol. 9, pp. 160–161, July, 1919.

fatigue, and thus tends to emphasize all the consequences of fatigue—irregular attendance, sickness, physical debility. When long pursued, it tends to increase labor turnover and to stimulate unrest; and finally, it tends to increase the unit cost of the product, both by slowing the pace and by requiring in many cases a higher rate per hour for overtime work.[1] Consequently, there should be a rigid limit to the number of overtime hours of work per day and per week. Certain carefully drawn collective agreements already contain clauses regulating overtime, and there is good reason for including such provisions in all labor contracts. One agreement says, for example, that "overtime work shall be limited to 6 hours in any 1 week and 1½ hours in any 1 day."[2] The reason for allowing this relatively wide margin lies in the fact of the seasonality of the industry in question.

Night Work.—Night work has normally no justification outside of the essentially continuous industries. In these cases the tendency is all in the direction of three 8-hour shifts, which reduces somewhat the hardships involved.[3] The deleterious effects of night work can apparently be further lessened by rotating the workers on the several shifts at some agreed interval. Although this distributes the night work over the entire force and gives to all a reasonable amount of time in which the normal hours of work, play, and sleep can be observed, it does involve

[1] See Florence, P. Sargant, "Economics of Fatigue and Unrest," p. 232, where in one case he found the rate of pay in relation to customary output to be not one-and-one-half times the usual rate, but two-and-three-quarter times, because of the falling off in production.

[2] Agreement in Dress and Waist Industry in New York City, as quoted in the U. S. Bureau of Labor Statistics, *Monthly Labor Review*, vol. 8, pp. 1559–1560, June, 1919. The justification for "time-and-a-half" or double pay is in the effectiveness of the *penalty* it presents against excessive overtime work.

[3] "The Twelve-hour Shift in Industry," by The Committee on Work Periods in Continuous Industry of the Federated American Engineering Societies, pp. 212–213 states:

"It is impossible to give average quantitative results for any industry in which a majority of the plants have changed to a three-shift basis of operation, but evidence is available to show what is attainable under good management and when the cooperation of labor has been secured.

"The report shows that in practically every major continuous industry there are plants which have increased the quantity of production per man up to as much as 25 per cent. In a few exceptional cases the increase has been much higher."

a periodic readjustment of living habits, which is found to be taxing.

The physiological objections to night work should be kept clearly in mind. It is the usual testimony that under night work (1) the worker gets less sleep than he needs; (2) he works less effectively in the early morning hours—3 to 5 a. m.—because the bodily vitality is then at its lowest point in the entire 24 hours; (3) the lunch period is usually short, and the factory facilities for providing a hot lunch are not always operating during the night; (4) little work is done during the last hour of the night shift in the cases where the shift is over 8 hours long.[1]

Sunday Work.—The commandment that on six days man and his helpers shall labor, but on the seventh day they should rest, has its sound foundation in human physiology. The English war studies of hours and output state their conclusions clearly as follows:

> At the commencement of the War, Sunday labor, especially for men, was widely adopted in the hope of increasing output. The evidence, however, proves conclusively that Sunday labor is unpopular, uneconomical, and not productive of increased output . . . Where Sunday labor becomes necessary, arrangements should be made by a system of relief shifts that no individual worker is employed more than six days in the week.[2]

The demands of civilization for continuous service in hotels and restaurants, transportation and telephone lines, the purveying of news, perishable food products, etc., make Sunday work today a necessity for hundreds of thousands of workers. In some companies this condition is met by one day of rest in fifteen. This is an unsatisfactory expedient for the worker and it does not meet the physiological demand for regular periods of rest. Employers in these industries, as well as consumers,

[1] Florence, P. Sargant, in "Economics of Fatigue and Unrest," p. 353, says:

"Work at night, with its reversal of habits, and its artificial illumination, is usually, though not universally, found associated with a higher accident rate. The comparative output at night depends on the method of working night shifts. If the shifts rotate, *i.e.*, if men or women work night and day for alternate periods, little difference is found, at any rate, in light repetition work. *Continuous* night shifts, however, may bring with them a marked decrease in output, particularly in the case of women. Here the suspicion enters that women workers engage in domestic duties during the day."

[2] "Industrial Health and Efficiency," *op. cit.*, p. 255.

must come to realize that the wage charge for a large enough staff of workers so that *each one can have at least one full day off in seven*, is a proper and economical part of the operating cost.

Holidays.—Saturday half-holidays are being constantly extended; and at least during the four summer months are widely granted. All day Saturday, especially during the summer, is granted in many department stores and in an increasing number of factories.

In written collective bargains the public holidays which are to be observed are usually named. This is the most satisfactory policy, since otherwise it often happens that in each individual company the granting of a holiday depends upon the amount of business in prospect, and no decision is reached until a few days before the holiday. It is now true in most of the Eastern states that a state or national holiday is observed in each of 10 or 11 months of the year. The adoption of this 1 day off a month (especially where it can be added into the week-end period) is desirable from the human and production points of view.

> The workers, refreshed and more vigorous, unconsciously start work on a higher level of speed and maintain that level permanently, whereas a reduction of hours unaccompanied by a holiday, *i.e.*, by a chance of breaking through settled habits of work, is generally very much slower in conducing to the desired reaction.[1]

In the same report there are the following valuable sentences:

> The committees desire especially to emphasize the need for giving periodic holidays to members of the management and to foremen. They cannot take odd days off like the ordinary worker, and cases of temporary breakdown have been regrettably common.

An observance of all the legal holidays thus has its benefits for executives as well as for manual workers.

Vacations.—Granting a regular annual vacation with pay to manual workers is gradually extending in this country. Many companies give vacations to salaried workers, but managerial thinking about the conditions of wage earners only recently has been sufficiently in scientific and physiological terms to bring the annual rest period for manual workers into use on any considerable scale.

A liberal vacation policy does, of course, presuppose a fairly stable working force, in which the labor turnover is small and

[1] "Industrial Health and Efficiency," *op. cit.* p. 91.

confined to a small percentage of the workers; and such a condition of stability has not in the past been a frequent characteristic of American industries. Now that more and more plants have taken steps to reduce turnover and create a permanent body of workers animated by good will, the problem of vacations is receiving widespread attention. Indeed, the need for a complete rest from industrial work for at least two weeks a year grows as the strain of industrial life increases. There exists today a serious combination of nervous anxiety about work and livelihood, speed of work, noise, and repetition of work at jobs in which the worker finds little to interest him. This strain must be offset, if there is not to be deterioration of vitality and personality. The physiological reasons for annual vacations growing out of industrial conditions distinctly unfavorable to the human nervous system are therefore cogent. It is interesting to know that annual vacations are compulsory by law in Austria, Finland, Poland, and Russia; and are throughout Europe embodied as one of the terms in collective bargains with labor unions.[1]

Interesting facts about present vacation policies are disclosed in several recent studies as follows: One organization finds that of 163 manufacturers studied 49 granted vacations with pay.[2] The New York State Department of Labor finds that out of 1500 firms 9 per cent had no vacation policy; 22 per cent gave them only to office employees; 50 per cent more extended them to office workers and foremen; and the balance, or 18 per cent, gave them to all types of workers. They found, however, that in half of the companies employing piece workers, they were excluded from the plan. They found also that vacations were much more prevalent in large plants than in small ones, and occur in certain selected industries rather than being generally distributed.[3]

One authoritative survey (in 1924) showed that 40 out of 106 enterprises studied gave manual workers vacations with pay; 20 gave vacations without pay.

[1] *Inter. Labor Review*, p. 10, January, 1925.

[2] This number includes, among others, the American Multigraph Co., Carter's Ink Co., Goodyear Tire & Rubber Co., Huyler's, Library Bureau, Joseph & Feiss Co., National Cash Register Co., Sears Roebuck & Co., Studebaker Corp., etc." From PUGH, GRACE, "Vacations with Pay for Factory Workers," published under the auspices of the Consumers' League of Eastern Pennsylvania, Philadelphia, May, 1923.

[3] "Vacation Policies in Manufacturing Industries," New York State Department of Labor, Special *Bull.* 138, July, 1925.

Several types of vacation plans are now found:

The most common is to give a flat-time vacation, usually one week in duration, to all employees who have been continuously in the employment of the firm for a set minimum length of time, most frequently one year. Employees who have been temporarily laid off on account of lack of work, or who have been out because of any prolonged sickness or any other legitimate reason, are considered continuously employed. Another common type of vacation is one graduated in length according to the years of service. A third and less frequently employed method is to make the vacation a form of attendance bonus; either giving a flat-time vacation but graduating the pay according to the attendance of the worker, or graduating the length of the paid vacation according to the attendance. The fourth plan is that of the vacation club. This is a thirft scheme. The employee pays weekly or bi-monthly a certain sum into the vacation club. Current interest rates are paid on savings. In the summer, when vacations are granted, the employee draws his deposits and interests and receives from the company the vacation bonus approximating in amount the total of his savings. A fifth vacation plan is in substance a bonus for returning to work for the company after the vacation period.[1]

A development of recent origin which gives every indication of spreading is the inclusion of provisions for vacations with pay in local collective agreements. Eleven trade unions have reported such provisions in over fifty localities.

Some firms have used vacations as a reward for regular attendance or some other "good behavior," others vary the length of the vacation with the length of service. Still others shut down the plant for ten days or two weeks in a period including the Fourth of July or Labor Day, and overhaul machinery or take stock. Concerns in this last group do not usually pay wages during the shutdown. There are also self-determined vacations which are usually more prevalent in small-town plants than in city factories. Often the workers leave for the summer to work on the farms or at summer hotels. This change of work may be almost as beneficial from a physiological point of view as a complete rest. But the worker has no certainty of reemployment, and the factory is meanwhile in an uncertain state about its summer labor supply.

A deliberate vacation policy for all workers who have been with the company over eight months seems to us the desirable standard

[1] Pugh, Grace, "Vacations with Pay for Factory Workers," *op. cit.*

practice for the immediate future in factories, offices, and stores. This holiday should be *with pay*, with payment in advance of at least half the vacation salary, in order that the worker may finance a real change of location. Two weeks is the minimum period in which any thorough physical recuperation can take place; and a longer time would be preferable. It is desirable to grant employees who have been in service longer than 2 or 3 years a longer holiday. To make the vacation a contingent of "good behavior," or to have it in force only after 5 years' employment, is like making sleep or three meals a day a reward. In reality all are demanded by the dictates of sound hygiene. The federal government's policy of a month's vacation a year, which applies to all its workers in the civil service including the manual workers, may seem unduly liberal. Yet it is an enlightened and human policy, which reflects in improved health, work, and good will.

Objection may fairly be urged that some workers do not know how to use a vacation; that they simply sit around their own homes, get no really beneficial change, or even may earn extra money outside. This objection may have force in those cases where the vacation habit is not formed, unless some conscious effort is made to get the employee interested in an outing. Leisure, like money, is something which one who is customarily without it has to learn how to use wisely. Also, in the absence of regular saving plans, many manual workers have not the savings on which to draw to pay for a trip for themselves and families, and they do not know where to go.

The company which sees the human benefits of an established vacation policy for all employees should at least during the first few years of the adoption of the policy help its employees by vigorously encouraging savings and by maintaining (or cooperating in the conduct of) a vacation bureau which will know all about fares, boarding houses, camping facilities, and prices at the available country or seaside resorts. There is a degree of inertia to be overcome in getting the family or individual who is unaccustomed to a vacation to go to the country or shore, which should be fully reckoned with in advance; but which it is well worth the effort to overcome.[1]

[1] Gray, George W., "Vacations for the Factory," in *Business Magazine*, pp. 41–42, says:

"In one Chicago factory the employment manager has established a vacation bureau. He has assembled catalogs and booklets from the various

Length of Working Periods.—The adoption of the 8-hour day usually solves automatically the difficulty of the too-long working period, since 4 hours of work are done in the morning and 4 in the afternoon. It is now fairly well established that 5 hours of uninterrupted work is too long a period in which to try to sustain production at the maximum.[1] The 4-hour period normally is not overfatiguing. Yet every job requires study to see, from the production standpoint, what is the best length of uninterrupted work period. There is evidence to show that frequently within the 4-hour period a rest period can profitably be introduced, at least at certain jobs.

The Noon Hour.—In addition to bringing the benefit of a shortened work period, the 8-hour day has also tended to increase the doubtfully hygienic practice of the half-hour lunch period. It is true that workers are often anxious to eat quickly in order to have the working day finish as early as possible; but there are physiological factors which, out of consideration for the long-time well-being of the workers, should be given weight. It is clearly impossible for the human stomach to bring the amount of food which should be taken at the noon meal to a state of sufficient digestion in 30 minutes to make it healthful for the worker to return at once to work, and thus draw the blood supply from the stomach where it is needed to further the processes of digestion; forty-five minutes is the shortest time which should be taken. The unhealthy tendency today to eat rapidly is sufficiently widespread to need no such encouragement as the half-hour lunch interval brings. Ideally, a full 30 minutes should

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resorts, camps, hotels, and other near-by vacation places. He has collected tables of rates, railroad maps, and time-tables, and all the necessary data for planning a vacation—whether it be on a farm, at a lakeshore hotel, or in a fishing camp. In the late spring he begins to post circulars and announcements on the factory bulletin boards; and from spring until midsummer he spends much of his time consulting the various workers who come to him for help in planning their recreation. Sometimes an employee will say, "I've got just $25 to spend on my vacation. Where can I get the most for my money?" The manager has a folder labeled '$25 Vacations,' and from its contents he easily plans a satisfactory two weeks for the applicant. He maintains, also, a directory of attractions in and around Chicago; and for the vacationists who are unable to leave the city this list of interesting places to visit, places for a day's picnic or a week-end outing, little-known attractions that are interesting, near-by, and not expensive has proved a big help. Other companies go even farther and provide the places for vacations."

[1] See "Industrial Health and Efficiency," *op. cit.*, p. 90.

be given to eating and 30 minutes more to quiet relaxation. It is usually found that if workers have some place to go besides the shop door-step and something to do besides sit on uncomfortable benches, they are less reluctant to give 45 or 60 minutes to the noon recess. The stomach, it should be remembered, is a vital part of the "physico-chemical engine," whch can be prematurely worn out and put temporarily out of business by overwork under improper conditions. To require it to finish its work while the body is otherwise engaged in physical labor is too severe a demand.

Decision about the actual lunch-hour policy in any given plant must, however, be made with its local conditions in view. If there are not convenient and adequate lunch rooms, or if the workers unwisely are being allowed to eat in the shop with nowhere to go after disposing of their little packet of lunch, there is some reason in their demand to get to work again and get away.

Rest Periods.—A rest period is a regular, concerted, and required pause in the work activity. The purpose of its introduction is to preserve the efficiency of the workers "through reduction of temporary fatigue and prevention of cumulative fatigue."[1] Industry already has a growing body of experience with rest periods; and they are found to be most clearly of advantage in the following types of work:

Occupations monotonous in character or requiring prolonged and intense concentration of attention.

Occupations enforcing either a continuous sitting or a continuous standing posture.

Occupations involving severe physical exertion.

Occupations exposing the workers to extreme heat or gases or other unfavorable ventilating arrangements.[2]

It frequently has been true that rest periods have been introduced and continued because, as one manager puts it, it is "common sense."

We believe, that it is self-evident that a few minutes in the middle of the morning and in the middle of the afternoon devoted to relaxation and

[1] See "Rest Periods for Industrial Workers," *Research Report*, 13, of the National Industrial Conference Board, Boston, 1919. We are indebted to this study for much of the matter in this section.

[2] "Rest Periods for Industrial Workers," *op. cit.*, p. 9.

to exercises, which will straighten out the cramped bones and muscles of workers have beneficial results in every way.[1]

More reasoned arguments have also been advanced by employers who have studied the results of this policy closely. It is claimed, for example, that rest periods show a beneficial effect on quantity and quality of work done. Quantity may be increased because of a spurt immediately preceding or following the rest period, or because of the greater energy which it is possible to summon throughout the working period.

I consider rest periods at certain times of the day as absolutely necessary to secure a reasonable amount of human effort from the individual worker. We find that we can do more and better work with fewer employees by this method.[2]

A 10-minute break in the middle of the morning and afternoon spells, during which the operatives remain at their machines, but take tea or other nutriment brought them by boys or by traveling canteens, has been found a valuable aid to output in some munition plants.[3]

The results of the experiments described in this report suggest that monotonous activities of the type under consideration cause a considerable reduction in output, which is most apparent about the middle of the spell of work. This reduction can be avoided to a certain extent by the introduction of a rest pause of 15 minutes duration half-way through the spell, and such a pause is slightly more effective than two rests of 7½ minutes each, introduced at intervals of 50 minutes. There is an increase in output not only after the rest, but also before the pause takes place. The increased output due to the introduction of rest pauses may not be due only to a reduction in the number and duration of adventitious rests in the continuous work series, but also to an increase in the rate of working.[4]

Quality, likewise, may be improved because the worker's powers of attention, perception, and manipulation are kept keen through an occasional rest.

That a brief rest would be conducive to better work in occupations involving such concentration as proofreading, bookkeeping, or close inspection seems almost self-evident.[5]

[1] "Rest Periods for Industrial Workers," *op. cit.*, p. 43.
[2] "Rest Periods for Industrial Workers," *op. cit.*, p. 20.
[3] "Industrial Health and Efficiency," *op. cit.*, p. 90.
[4] "Two Studies on Rest Pauses in Industry," *Report* 25, p. 34, of the Industrial Fatigue Research Board, London.
[5] "Rest Periods for Industrial Workers," *op. cit.*, p. 25.

The length of the rest intervals and the distribution of them through the working hours are subjects for experimentation[1]. Doctor Mayo recounts one experience as follows:

> Our findings were that the conditions of work involved a considerable degree of postural fatigue. This fatigue was complicated and increased by an almost universal incidence of pessimistic revery. To remedy this, the management introduced rest-pauses, four in a 10-hour day, in which the men were asked to lie down and were instructed in the best method of relaxation. Since the institution of this system, the labor turnover has become negligible, the evidence of general pessimism have diminished or disappeared, and the productivity of the department has increased by approximately 15 per cent.[2]

On the other hand, the usual practice, where work is less arduous and an 8-hour day is in force, is a period in the middle of the morning of 10 or 15 minutes, and a similar respite in the middle of the afternoon.

Questions often arise about the use of this interval. Some plants leave the workers to themselves, and it is understood that they shall use the time to get drinking water, walk around, and use the toilets. A few plants where the work is sedentary have setting-up exercises for 5 minutes; selected workers are trained in the setting-up drill, and they lead the drill in their own departments. Windows are opened, and everyone is encouraged to get the most complete possible physical change. Other plants encourage the taking of a small lunch at this time. Provided that wholesome food like milk, sweet chocolate, or sandwiches is taken, this is sound practice, and should be encouraged, especially in

[1] Myers, Charles S., Director of the National Institute of Industrial Psychology of Great Britain, "The Study of Fatigue," in *J. Personnel Research*, vol. 3, No. 9, pp. 331–332, January, 1925, states:

"In another experiment an increase of over 14 per cent in output was obtained by the introduction of a 15-minute interval in the morning and the afternoon, which the workers, engaged in another factory on the same work as that referred to, spent mainly in a *change of work*, not merely in rest. They spent the pause in collecting materials, a task which had been previously carried out partly during the first few minutes of each morning's work, partly distributed irregularly throughout the remainder of the day. The output curve showed an enormous improvement in form as well as in height."

[2] Mayo, Elton, "The Basis of Industrial Psychology," in *Bull.* of the Taylor Society, vol. 9, No. 6, p. 256, December, 1924.

the morning interval when many workers have taken a breakfast insufficient to energize them until noon.

The important principle to apply is that the workers should be encouraged to do something in the rest period which brings a real change in position, muscular action, and blood pressure.

The administration of rest periods is not without its difficulties. Some employers object that there are types of work at which the worker can normally rest between the times when the job requires attention. Whether this is true or not is easily established by job analysis; and where it is true, the need for a rest period is minimized. At other types of work it is claimed that the period of rest would naturally follow the completion of certain parts of the process which occurs at irregular times, and that it has necessarily to be intermittent. Where this is the case, obviously the time of rest should be accommodated to the nature of the work.

Certain objections that may arise at the installation of rest periods depend for their satisfactory handling largely upon the management's attitude and the shop morale. For example, workers may prefer to have no rest periods but a shorter working day. This is a natural position, even if the day is 8 hours long or less; but it is an objection that the management can usually meet with ease if it is in the habit of conferring with its workers and explaining the reason for using rest periods. Again, there may be danger that at first it will take the shop a long time to settle down after the period is over; or that the machine or material has again to be made ready to use when the worker returns after an interruption of the process. Neither of these difficulties, however, prove impossible to meet; under special manufacturing conditions rest periods can be dovetailed or taken by groups in rotation.

There is also the piece worker's possible objection—occasioned if output and, therefore, earnings are even slightly reduced when rest periods are introduced. If it should really in a few cases prove true that the earnings of piece workers suffer a permanent reduction, this situation might be met by a slight alteration of the rates, which will give the worker as much as he earned before. For the piece worker is in many cases more in need of the interval than the day worker.

In conclusion, it may be said safely that the use of rest periods, even when no positive effect on output is demonstrable, is a

commendable and physiologically wise precaution at most jobs. As to the length and distribution of the periods, however, it is impossible to generalize.

Hours and Working Periods for Women Workers and Children.—Consideration for the health and integrity of the race has led to the gradual adoption of legislative restrictions upon the working hours of women and children, which do not apply to men. It is not necessary to recite what those restrictions are in detail or what specific regulations each state has. It is important to understand, however, that the enlightened conscience of the community has reached a stage where the following standards are regarded as essential:

There should be no night work for women, or for children (under sixteen years of age); that is, work after 10 o'clock in the evening or before 6 in the morning.

There should be no more than 48 hours of work per week for women and children; and less is desirable. This maximum figure should be inclusive of all overtime.

Children under fourteen and preferably under sixteen should not be allowed to engage in industrial, commercial, or mercantile work.

There should usually be a full hour off at noon.

There should be a rest period of at least 10 minutes in the middle of the morning and the afternoon.

Pregnant women should not be employed for at least 8 weeks preceding and following childbirth.

For all women and girl workers, 1 day a month might well be allowed off with pay, the day to be taken at the worker's discretion.

Organized opposition to regulative provisions for women is now voiced by certain women's organizations, which take the view that such regulation results in an invidious discrimination in the competition for jobs between men and women. This view, however, seems still to be considered ultra-feminist by many, and lacking in realism as to the physiological limitations under which women work. In consequence, the repeal of existing statutes or long delay in the passage of additional legislation designed to incorporate the above standards into law seems both unlikely and unwise.

Conclusion.—Since this is a subject upon which actual practices are necessarily dictated by a combination of production require-

ments, scientific data, and human desires, *those practices will be most amicably determined and effectively put into operation if they are made the subject of determination by managers and workers in conference.* There are maximum hours and working periods which it is clearly inexpedient to exceed. There are certain rest intervals which it is clearly expedient to introduce; but experiments are needed to determine the best possible relation between length and intensity of operations and high output.

Finally, employers should realize that the progressive demand for shortened hours seriously challenges their managerial ability. It gives a new reason for intensive application of the workers to their work while they are on the job. Managers, especially, will require a firm grasp and control of all the other elements, besides the time of the workers at the bench and machine, which contribute to productivity. Once the real roots of efficiency are tapped, there is good reason to believe that the working time may be further reduced to even more healthful and enjoyable limits. Civilization should presently be able to refute the melancholy observation of John Stuart Mill that it was doubtful whether the introduction of machinery had in any way lightened the burdens of mankind.

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CHAPTER VIII

THE HEALTH OF THE WORKER

Bodily integrity is the foundation of economic and social efficiency. It is the keystone of health, holding together mind, body, and spirit. Without that integrity the wholeness and wholesomeness of the individual is impaired. With it, the groundwork is laid for individual competence and industrial efficiency. Health is thus obviously at the root of productivity and of cordial industrial relations. "The idea is rapidly growing that, of all the factors of an economic advantage, health is the most crucial."[1]

In consequence, in factories and stores (usually associated with the personnel department) there is found a health division or section in which are employed nurses or doctors, or both. More and more attention is being given to physical examinations, to health instruction, to the provision of hospital facilities adjacent to plants, to clinics for workers. Industrial managers have recognized the wisdom and necessity of conserving health as the basis of efficiency.

As a result of this new emphasis on health, a new specialty has been developed in the practice of medicine.

> Industrial medicine may be defined as the theory and practice of medicine applied to the purpose of preventing and alleviating sickness and injury among industrial workers in order that they may enjoy the benefits of continuous productive employment.[2]

Industrial health work thus conceived covers a wide field. It emphasizes preventive work in addition to the care of diseases and accidents occurring within the factory, and some medical

[1] Favill, *Thirteenth Biennial Report*, Part III; 485 Wisconsin Bureau of Labor, 1907–1908.

[2] Selby, C. D. "Studies of the Medical and Surgical Care of Industrial Workers." p. 5.

investigation and follow-up treatment of disability cases. Its scope includes plant sanitation and safety; physical examinations and various laboratory tests; first aid, emergency, and dispensary treatment; hospital and clinical care. Some companies provide for dental prophylaxis and the treatment of eye, ear, nose, and throat defects.

The tendency is undoubtedly toward putting all a corporation's work which is directly related to health under trained medical supervision, in the medical section of the personnel department. This conclusion has been reached in one plant after another as the beneficial results of preventive health work have been reflected in increased output, decreased turnover, decreased absences, and better all-around health.

One large corporation, although in many respects leading in enlightened industrial practice, was opposed to strict medical oversight. Its progressive employment director studied the turnover attentively and found that during the past year 13 per cent of the men leaving went on account of ill health or because their physical condition demanded outside work. This change in personnel directed the attention of the company to the necessity for selecting workers more carefully for the jobs they were to do. In order properly to select men, it became necessary to ascertain the physical, mental, and moral qualities required in every particular job. To meet this need the semi-skilled and unskilled jobs in the plant's manufacturing division were analyzed in some detail. Thus, in spite of the firm's reluctance to adopt health supervision, its own records of labor turnover demonstrated that healthy workers were a most vitally necessary factor in successful production.

Nor are the benefits of industrial medicine confined to the management's side. To the employee adequate health supervision brings the advantages of increasing his earning power by keeping him in proper physical condition; by preventing him from injuring himself by overwork or carelessly infecting himself or his associates. Industrial medical oversight increases the worker's understanding of personal and social hygiene. It shows that physical incapacity is not a dispensation of Providence, but largely the result of neglect or ignorance.

The Health Program.—Assuming, then, that there is trained medical leadership in the organization, what is the program which can profitably be carried out? The following are typical

of the activities usually assumed by a well-organized health division:

A. Physical examination prior to employment and periodically thereafter of all new and old employees, including follow-up of all employees:
   1. Periodical physical re-examination, varying for different groups of workers and in different processes. In dangerous processes or for workers under observation and treatment this re-examination should recur frequently.
   2. Recommending transfer of workers for health reasons.
   3. Clinical follow-up of accepted applicants who have minor defects.

B. Knowledge, inspection, and supervision of plant working conditions:
   1. Sanitation and safety of general plant working conditions to eliminate health hazards.

C. Preventive and prophylactic health measures:
   1. Immediate attention to all health defects found in physical examinations.
   2. Immediate attention to all employees incapacitated from accident or illness.
   3. Administration of first aid; dispensary; hospital.
   4. Knowledge of physical requirements of trade processes.
   5. Health education including constructive advice and instruction in personal and social hygiene, safety, and sanitation.

D. Active cooperation in health matters:
   1. Between medical staff and all the rest of the plant through health committees.
   2. Between medical staff and mutual benefit society or group insurance agents.
   3. Between industrial corporations and private or public health and educational agencies.
   4. Between industries and state health insurance administrators.

E. Health administration:
   1. Staff.
   2. Qualifications of physician; nurse.
   3. Equipment; records; cost.
   4. Responsibility for health supervision.

Physical Examination and Follow-up of Employees.—Modern corporations increasingly recognize the importance of definite standards of individual health as a test for employment. The physical examination is essential to the successful carrying out of a general program of industrial health care. The test is the physical inventory which enables the industrial physician to select and maintain a healthy, physically competent labor force.

The objectives of the medical examination are health protection, conservation, and improvement. These aims should be

sympathetically explained in advance to every worker. He should understand that the management not only wishes to place him at work for which he is physically and mentally best fitted, but to safeguard him and others from industrial accidents, occupational hazards and epidemics. He should be told that by means of the medical examination, permitting the detection of physical defects or incipient disease, he may gain relief and ultimate improvement in health and working efficiency.

Organized employees from time to time have raised objections to physical examinations. But upon analysis the objection is usually found to apply less to the examinations themselves than to the abuses which might possibly arise from the use of the findings. Anxiety to see the control of health administration in non-industrial hands arises from a genuine sense of the limitations upon company medical work. Organized labor maintains that responsibility for preventive or curative health work should be assumed jointly by employers, workers, and community. This is a sound view. It is certainly difficult for any one plant alone to cope with the problem of rejecting industrial workers afflicted with tuberculosis, venereal, or other infectious diseases. The ultimate need is for a program of community attack through preventive and restorative clinics which will distribute the burden of rehabilitating such people regardless of their present industrial connections.

As a practical matter, however, so much can be done at once to foster working-class health by corporation activities that it would be most short-sighted for workers and corporations alike to be deprived of the immediate benefits to be obtained.

The former president of the American Federation of Labor has indorsed medical examinations, provided they are given by publicly employed physicians using health standards which have been agreed to in advance by the organized workers. As recently as April 1, 1925, the Painters' Union in Rochester entered into a one-year health agreement with the trade for the purpose of regulating the working conditions affecting the health of painters and minimizing occupational disease.

The activities of the so-called Joint Board of Sanitary Control described later in the chapter are also a vivid evidence of the appreciation of health work by another large union. Corporations are as a matter of fact unlikely to encounter active resistance to physical examinations and the entire health program

provided (1) health records are rigorously safeguarded, (2) emphasis is placed upon corrective and preventive efforts, (3) doctors and nurses of the right type of personality are employed, (4) nurses are not used to pry unwarrantedly into the employees' home affairs.

The Case for Physical Examinations.—The purposes of physical examinations are:

1. To determine who is physically qualified to be employed.
2. To determine for what types of work each applicant may apply.
3. To discover in accepted applicants remediable defects the correction of which will improve the worker's health and efficiency.
4. To identify defects which might contribute to accidents for which the employer is liable for compensation.
5. To protect the health of present employees by not exposing them to new sources of contagion or to other dangers growing out of the physical condition of the new worker.

Benefits of Physical Examinations.—The benefits of physical examinations from both the company's and the employee's point of view have been well summarized as follows:

Numerous, though small, benefits have been found in physical examinations, by the employer as well as by the worker. It is primarily intended as a means of increasing efficiency and production and it has been found to accomplish these ends. It keeps undesirables and poor risks out of the plant, prevents or lessens epidemics, enables the early discovery of disease and thereby increases the chance of recovery. By its means absenteeism is considerably reduced, as in such plants as that of the National Cash Register Company. The discovery of the exact physical condition of the worker at the time of entrance and subsequently prevents accidents and enables the employer to resist unjust claims for injuries.

The worker benefits primarily by having his general health supervised without cost. He is made aware of the dangers of disease, his periods of sickness are reduced, and he is enabled to become a steady wage-earner. He saves money on doctors' bills and, at the same time, increases the amount in his pay envelope. By the exclusion of applicants with contagious diseases the regular force is protected and its exposure is reduced. An intelligent knowledge of a man's physical condition enables the doctor to place him where he can produce most with the least physical strain and with resulting content. Through proper medical inspection the man with a weak heart is placed at a job with a minimum risk from accident to himself or others. At a moderate computation a worker is saved $20 a year in doctors' bills, while improved health increases his

earning capacity, reduces the number of days away from work, and adds, at least, $10 to $15 a year to his wages in this way alone.[1]

Physical examinations, when intelligently given and when used as an evidence of good will in personnel work, do not today work to exclude applicants from jobs. The effort is rather to secure the best possible adaptation of workers to job. The rejections are few. In the best plants the rate has been for years around 5 per cent of the applicants. Indeed, in the larger companies where the value of health workers is understood, applicants who might properly be rejected on physical grounds are being accepted and given free medical treatment in the company's corrective clinics. Some companies report no rejections for physical reasons because of a variety of jobs at which applicants may be placed.

Cases of unsuspected heart disease, tuberculosis, kidney disease, eye disabilities, and similar conditions have been found times without number, and through the free advice and cooperation of the examining physician corrective treatment has been instituted and what would soon have developed into a permanent disability has been corrected and the danger obviated. Men have been saved months and even years of suffering and misery by learning from the examining physician just what to do with their disabilities. A timely minor operation, a change in habit of living, a change in diet and exercise, and similar matters have brought about a return to full health and efficiency; whereas, if the employee had continued without medical supervision and particularly without the physical examination, he would sooner or later have been forced to relinquish his employment and have become a charge upon his family or the community.[2]

Much depends upon the spirit in which the work is undertaken. The management must believe and heartily cooperate in the effort. The higher officials should set the example of undergoing the physical test and of following the advice given.

Certain details of operation are often perplexing. Shall the examination be compulsory or voluntary, occasional or periodic, at entrance or subsequently? It is desirable to decide these matters before making a start. Compulsion is a last resort except in the case of applicants.

[1] HACKETT, J. D., "Health Maintenance in Industry," pp. 211–212.

[2] RECTOR, FRANK L., Secretary of American Association of Industrial Physicians and Surgeons, and Editor of *The Nation's Health* in "Physical Examinations in Industry," U. S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, p. 21, April, 1926.

Experience shows that applicants are quite willing to undergo a physical examination when there is the possibility of employment. The situation is different with the regular employee. He looks on the subject as a tyranny and an infringement of his rights as a free man unless voluntariness is one of the conditions. When physical examination is voluntary from the start, a favorable sentiment is created and compulsion is seldom necessary. After most of the employees have voluntarily been examined, the argument for compulsion with the remainder is strong. In the Greenfield Tap and Die Company voluntary examination was accepted by half of the employees. The Eaton, Crane & Pike Company made it voluntary and subsequently compulsory, feeling that the results obtained under the voluntary system justified its application to the remainder of the force.[1]

The character of the medical examination will naturally vary with the physical requirements of the position which the applicant is to fill. Yet no examination should be so superficial that it does not cover the relation of height to weight, lung conditions, teeth, head and throat, sight and hearing, possible hernia, and possible communicable diseases.

After the applicant has been selected tentatively for employment comes the physical examination proper, the assumption being that every one passed by the employment office is suitable for the job selected in every respect other than the medical. It is now the doctor's responsibility to determine on selection or rejection, his attitude being guided not only by the medical findings, but by the plant needs as well. Obviously the condition of the labor market must be considered. When the labor market is full, few will be hired and it is necessary to raise the physical standard as high as possible. If labor is short, the requirements need not be so rigid. Applicants may be accepted tentatively and a more exhaustive examination made subsequently, involving blood count, sputum, urinalysis, and the like, as may be advisable. Usually this special examination is reserved, not for applicants, but for the older employees, since every effort must be made to keep the force healthy when it is hard to replace men.[2]

Examinations should, of course, be given by a fully qualified doctor who shows tact and patience in dealing with applicants. The emphasis of his whole outlook and effort should be in the direction *of helping employees to stay well no less than to get well.* For women employees the examination should be by a woman physician.

[1] HACKETT, J. D., "Health Maintenance in Industry," p. 214.
[2] HACKETT, J. D., "Health Maintenance in Industry," pp. 216–217.

A few companies have recognized a social responsibility for applicants who do not conform to their usual employment standards. They contend that each community has its residuum of handicapped individuals and that it is the duty of employers to place these to the extent which does not endanger the life and health of either the handicapped or their fellow workers. It is certainly true that with a little study useful places may be made in many companies for some who are blind, or deaf, or partially crippled, or slightly below the average mentally.

Re-examination.—On the relative advantages and disadvantages of periodic re-examination, the following statements are informing:

A desirable program of re-examination may be pursued among the following divisions of the personnel:

1. The Management.
2. Sub-standard workers.
3. Workers exposed to industrial hazards.
4. The remaining employed group.

The Management, being the most vital to the success of the concern, offers the most fertile field for constructive health work. The most important members should be examined every six months, the entire Mangement yearly, and the necessary preventive and reconstructive treatments instituted.

Sub-standard workers should be reexamined at such times as the individual needs of the case indicate. The physician making the initial examination will quickly ascertain when a reexamination will be desirable, and should establish a record system which will automatically bring this case to attention at the proper time.

Workers exposed to occupational hazards should be reexamined according to requirements of the particular situation. Much authentic literature deals in detail with various occupational diseases and will serve as a guide for the unacquainted in laying out their program.

Whenever practical, it is desirable to reexamine the remaining group yearly. If, for good reasons, this is impossible, the initial examination of applicants and reexaminations, according to the above schedule of those in the Management, sub-normal workers and workers exposed to industrial hazards will secure a large proportion of the benefits to be derived from physical examination. It is to be remembered that through dispensary visits on account of sickness or accident, opportunity is presented for the casual examination of a large number of workers.[1]

[1] QUINBY, DR. R. S., Service Manager, Hood Rubber Company, "A Manual for Health Supervision," pp. 5–6, presented at the A. M. A. Annual Convention. Reprinted by American Management Association, 20 Vesey Street, New York, 1925.

A somewhat different view is reflected below:

Some employers are content to have the entrance examination and it alone. Others believe there should be a periodic examination of all employees, while a third group favor reexamination, depending on ascertained defects or on signs of sickness, and return to work after sickness. The latter appears to be the most sensible plan. Its aim is to make a physical examination whenever and as often as is necessary. A periodic examination, every six months or a year, for those who are healthy, is not only a nuisance for workers but it takes up much of their time, disrupts the working routine, and gives negative results in the large percentage of cases. Any adequate plan of health education makes workers sensitive to their physical condition and they seek medical aid readily enough. The cases where a disease steals on the worker unaware are few. In any case, the physical examination at entrance is sufficient to show what employees need periodic examination. Periodic physical examination consumes the time of the doctor and leaves him little time for other and, perhaps, more important work. As a modification, some plants insist on physical examination once a year for persons over 50 years, and one every two years for those younger. Periodic physical examination has its most strenuous advocates among those who suffer no inconvenience or cost from its imposition. In actual practice various occasions arise in the course of a year where physical examination may be repeated objectively, such as, for instance, when a worker desires to join a mutual aid association or when he complains of sickness. Physical examinations made at such times are highly useful and generally meet the situation adequately.[1]

Special Services.—Many companies are finding it advisable to provide a well-equipped dentist's office, where examination and emergency work are generally free, and where clinical dentistry is done at a nominal charge for materials used plus the dentist's time. A few companies feel that the preventive work here is so important that they require dental treatment, in which case, of course, the treatment is practically free. The usual estimate is that over 25 per cent of factory workers have defective teeth. Therefore, prompt dental service may frequently result in warding off incipient rheumatism, tuberculosis, or throat epidemics. The head of a large industrial dental clinic recently reported that one dental unit working full time is needed for every 500 or 600 employees. In this clinic every patient would require at least annually from 45 minutes to 1 hour for prophylactic or emergency service only, at a cost per unit of $3 per hour. A new complete

[1] HACKETT, J. D., "Health Maintenance in Industry," pp. 214–215.

dental unit costs less than $2000, and nominal treatment charges would cover more than half of the service cost. This figure of approximately $3 per patient per year seems to represent a norm among many of the companies doing this type of work.[1]

Probably 50 per cent of the factory employees have uncorrected visual difficulties sufficiently serious to warrant corrective activity. This fact has led in plants employing several thousands of employees to the installation of an ocular clinic. The equipment for this costs approximately $300, in addition to the salary of a part or full-time oculist. Some remarkable results have been reported from a few companies in the way of increased production when a systematic campaign of corrective work has been carried through. The work of the plant clinic is limited to examination, ordinary visual corrections, and prophylactic treatment. Special arrangements can often be made for securing glasses outside which will diminish the cost of this service.

Estimates show that at least 40 per cent of the sickness disability among industrial workers is caused by respiratory afflictions, which would include colds, sore throats, etc. The effort to reduce this volume must be made largely through educational work in personal hygiene in the first instance, and through encouraging the workers to bring slight illnesses at once for treatment.

Dispensary and Hospital.—It is usually justifiable for a plant or store to maintain sufficient hospital or dispensary facilities to minister to workers who become mildly indisposed while on the job. Many hours of work are saved to corporations and many hours' wages to workers by having beds or couches on which they may recuperate, and by having doctors who can prescribe beneficial treatment. Yet it is possible to go too far in this eagerness to get workers back on the job. If employees are really indisposed, recovery is usually more prompt if strength is thoroughly regained before work is reattempted.

The dispensary and hospital should primarily function as a first-aid station for the treatment of accidental injuries, or of ordinary sickness contracted during work hours.[2] The scope of these facilities has been widened in many companies and now meets almost every medical need of the employees. Yet com-

[1] HACKETT, J. D., "Health Maintenance in Industry," pp. 52–53.

[2] Complete details as to the type and quantity of equipment necessary in industrial dispensaries are available in CLARK, W. I., "Health Service in Industry," Chap. IV.

pany hospitals should be used discreetly so as not to strive for premature cures on the one hand nor take the place of the family physician on the other.

Some large modern plants have separate buildings for dispensary and hospital wards, even though bedridden workers are kept there only temporarily. Plants located in country districts where community provisions for medical aid do not exist are often warranted in building a dispensary or hospital. Such companies have a special responsibility for safeguarding the health of their employees.

Where no hospital facilities are furnished on the company premises, the management should cooperate with existing district nursing and other civic agencies, or subsidize at a greatly reduced cost free medical assistance or endow beds for industrial workers in the local institutions. The retaining of a doctor on full-time service or the creation of a benefit fund that hires a doctor and nurse are possible alternative expedients.

Health Records.—Adequate health records are an essential index to the physical condition of the workers. Records of causes of absence, of accidents, sickness, occupational diseases—all are vital to a medical policy which is to be pursued intelligently. Indeed, such records can often supply the unanswerable evidence in behalf of needed changes in personnel procedure.

Forms and systems for the proper and adequate recording of all the necessary medical information, including the results of physical examinations, have been adopted by the Conference Board of Physicians in Industry.[1]

Medical Staff and Administration.—The size of the medical organization is determined by the number of employees and the company's policy regarding the elaborateness of the health work which will be undertaken. Typical experience seems to show that a "full-time physician and nurse can care for the dispensary work of a plant employing up to 1500 people."[2] A company having as few as 200 employees apparently can make use of the full-time services of a nurse, especially if her function is not viewed in too limited a way.

Administration of Health Work.—Although there is divergence in the policy regarding the executive to which the head of the

[1] For further information write to this organization at 247 Park Avenue, New York, N. Y.

[2] See QUINBY, *op. cit.*, p. 8.

medical work reports, there is a reasonable consensus among the best organized departments that this work should be viewed as a division of the personnel department's activities. The doctor or nurse in charge should therefore report to whoever is charged with the conduct of the personnel department or associated personnel activities. The head of the personnel work should have a clear understanding with the one in charge of medical work as to the limits upon the authority of the medical division; and as a matter of general principle, it should be true that the doctor or nurse would speak with final authority only upon those matters which are predominantly medical in character.

Where the medical department has much to do with the reduction of compensation claims, it naturally works in close cooperation with the company's legal department. Where it gives physical examinations it works in close association with the employment office. Where there is a mutual benefit society it works closely with it; but the ultimate coordinating direction should be in the hands of the personnel executive.

The Industrial Physician.—The physician in industry is one who applies the principles of modern medicine and surgery to the industrial worker, sick or well, supplementing the remedial agencies of medicine by the sound application of hygiene, sanitation, and accident prevention; and who, in addition, has an adequate and cooperative appreciation of the social, economic, and administrative problems and responsibilities of industry in its relation to society.

In this statement the Conference Board of Physicians in Industry defines the responsibilities of the industrial physician. The attitude of the company physician toward the work people should be that of a friend who treats them with respect and sees their troubles as far as possible from their point of view. To be effective his services should be rendered in a courteous, cheerful, and sympathetic spirit. He cannot hope to win the confidence and willing cooperation of the work force without extraordinary patience, good temper, and professional tact. Once that confidence is established, the doctor can help in untold ways to straighten out all sorts of individual difficulties which would otherwise create unhappiness and destroy effective workmanship.

The Industrial Nurse.—The industrial nurse whose work requires more than first-aid treatments should be well trained in social work, district nursing, and visiting housekeeping. In

many problems of sanitation and first aid, dietetics, and infant welfare, moral, domestic, and industrial troubles, her counsel will be freely and usefully sought by employees if she proves to be a person whose confidence may be trusted. Workers are quick to respond to a feeling of genuine personal interest, especially where serious personal problems have arisen. Through daily trips in the factory or store, and even occasional home visits, she can keep in touch with all ill and absent workers, and in some companies it is her duty to investigate all cases of absence and tardiness. She needs a special endowment of tact and patience in going about among the employees' families and in trying to coordinate corporation health work with that of local health agencies.

The duties of the industrial nurse depend usually upon the size of the organization. In some cases her labors are confined to dispensary work and care of accidents and illnesses. Sometimes she gives instruction in industrial hygiene and sanitation. In other cases she works especially in the families of employees on prenatal care, dietetics, and house sanitation. As a rule, the nurse is also responsible for complete and accurate records of accident, sickness, and occupational disease.

Cost of Medical Work.—Figures as to the cost of medical service in industry, although not completely standardized, have been collected from a sufficient variety of companies to give a fairly accurate index as to the outlay which is required. Although the legitimate expenditure varies greatly as between a department store and a gold mine, for example, an average figure seems to be in the neighborhood of $5 per worker per year. Apparently, on the basis of such a budget, in the neighborhood of 70 per cent of the outlay is consumed in staff salaries. One study of "90 leading manufacturing plants" in Massachusetts shows them to be spending three-tenths of 1 per cent of the factory payroll on health work.

Health Education.—There is a wide agreement that one of the most effective and essential elements of good health work is the carrying forward of a definite educational policy which will include executives as well as employees in all departments. The proper conduct of this depends almost entirely upon the doctor and the nurse, who must be thoroughly imbued with the preventive attitude rather than with merely the old-fashioned preoccupation with prescribing medicines.

Both individual and group meetings are employed to make this work effective. The physical examination and the reexamination constitute, of course, the first vital points of contact out of which the subsequent preventive work can develop. Encouraging individuals to bring the most minor ailments for consideration and encouraging the medical department to familiarize itself with the peculiar accident, occupational disease, and physical and mental strain hazards of the enterprise, may be the means of beginning preventive work.

Doctor Quinby, in discussing the relative merits of individual and group education methods, says:

> I would weigh the value of the individual contact type as against the group method at least 80 to 20. I believe that the individual method will return you 80 per cent of the total as against 20 per cent by any group method.

As a part of the program of individual instruction he rightly insists that a great deal may be done with the foremen both for themselves and in order to get them to take the right attitude toward work done by those in their departments. The health program must, in short, be sold to the foremen so that they will be on the lookout for people who appear to be in any way subnormal, so they may be brought promptly to the attention of the medical department.

This same medical director testifies that in his own plant in the last five years they have cut down by one-half both the amount of time lost and the number of people absent because of disability, due largely to this type of preventive educational work.

On the side of group methods, the use of periodic health lectures has proved beneficial, especially if they are given in a simple and graphic fashion, so that the lesson may be quickly appreciated by the employees. Such talks are also supplemented by the use of educational pamphlets and fliers which are inclosed in the pay envelopes and by the presentation of special articles on timely topics in the house organ.[1]

A further method of assuring that the employees will take an affirmative interest in a health program is to encourage the

[1] See in connection with this entire discussion Rector, Dr. Frank L., "Health Education," Supplement to Committee Report of National Industrial Conference Board, and Discussion at the Pittsburgh Convention, Nov. 8, 1922. Reprinted by National Personnel Association, 20 Vesey Street, New York, 1922.

organization of a health committee which in an organization which has a shop committee might be a standing committee of the shop committee.

These committees may be either appointed or elected as seems best, with periodic rotation of members, and they should be encouraged to consider and report special health problems peculiar to the company or industry.

Discussing powers of the health committee in the department store, Doctor Emmons gives the following suggestions, which apply almost in their entirety to other types of organization:

> A store health committee or council can ascertain the facts and consider them in their bearing on separate store departments; can learn the popular reaction to a measure; can formulate a plan consistent with established store policies; can recommend such procedure to the store directors with confidence that it will receive prompt consideration and even probable adoption unless serious obstacles arise; can adapt a plan to store needs; can strongly influence store public opinion to give it a fair trial and often to insure its success by disarming prejudice and obtaining hearty cooperation. The health committee can be to the doctor the greatest aid in making effective his professional knowledge.
>
> The personnel of such a health committee or council should naturally be representative of those directly affected by its actions. These are the employment manager, the educational director, the store superintendent, the personnel officer, the president of the store mutual aid association, the store engineer, a member of the firm or a director (representing the business as such), the doctor, and the nurse.[1]

Results of Medical Service.—The testimony of industrial doctors and personnel workers on the extent to which industrial medicine has reduced sickness, absenteeism, and labor turnover is unanimously favorable. A representative statement of the results of six years of well-organized health work in one company is given in the following quotation:

> In order to give some idea of what results may be expected from such a program as has been outlined, several figures are given indicating the experience of one company. Over a period of six years, a group of factory workers averaging over 6000, of which about one-third were women, have lost only 5 per cent of working time, or 15 working days yearly. Of this lost time, six days, or 2 per cent, were lost on account of sickness and accident, and nine days, or 3 per cent, because of personal reasons. The fact that females lose nearly twice as much time as males,

[1] Emmons, A. B., "Health Control in Mercantile Life," p. 83.

from both sickness and personal reasons, makes these rates higher than in a plant employing only males.

In 1923, the experience of twelve plants employing 24,555 and reporting through the United States Public Health Service showed that 525 males in every 1000 were disabled by sickness or non-industrial accident over two days. This company had only 342 cases per 1000 or 183 less cases per 1000 of disabling sicknesses during the year than the average of the group.

An interesting correlation between lost time from sickness and accident and physical examination classification is shown over a period of three years by the following table:

Average for Three Years

Physical Examination Classification	Days Lost from Sickness and Accident	
	Male	Female
All Employees	5.36	9.46
Class No. 1	4.74	8.81
Class No. 2	5.31	9.55
Class No. 3	7.59	15.83[1]

In a department store, as a result of three years of well-organized health work, the number of days lost per worker per year was reduced from eleven to seven. In the first year the mutual benefit association paid out $50,000 in benefits, and in the third year it paid out $15,000. This store in 1923–1924 had an intensive campaign against colds, and during a year there was a reduction of 3400 cases and a saving of 5500 days of lost time.[2]

In two investigations made approximately five years apart, it was found that in the first investigation, covering over 200 plants, workers in 98 plants with physical examinations sustained an average of 1.56 injuries per worker per year as compared with 1.92 injuries per worker per year for workers in 105 plants without examinations; and similar figures for the later investigation among more than 400 plants were 1.66 injuries per worker per year in 217 plants with physical examinations as contrasted with 1.72 injuries per year in 225 plants without.[3]

Occupational Diseases.—With the increasing tendency to define diseases of occupation under workmen's compensation

[1] Quinby, *op. cit.*, p. 14.

[2] See Emmons, A. B., "Health Control in Mercantile Life," pp. 223–224.

[3] Rector, Dr. Frank L., Secretary of American Association of Industrial Physicians and Surgeons, and Editor of *Nation's Health* in "Physical Examinations in Industry," *Monthly Labor Review*, U. S. Department of Labor, Bureau of Labor Statistics, p. 21, April, 1926.

laws as compensatable accidents, it has become more important than ever for companies to identify and reduce all possible occupational disease hazards. Given a competent medical staff, the discovery of these hazards and the employment of corrective and preventive measures are an important part of its work. As currently defined by medical experts, occupational diseases in one form or another are likely to be encountered even under conditions where acute afflictions might not be expected. Doctor Kober makes the following definition:

> Diseases of occupation may be defined as injuries and disturbances of health contracted in industrial pursuits, and other vocations in life, as a result of exposure to toxic agents, infectious organisms, or other conditions inimical to health. These diseases may be acute or chronic and vary in intensity and duration from the acute and fatal attacks of asphyxia, caused by suffocating gases, to the slow and insidious forms of industrial tuberculosis.[1]

Adequate research into the important occupational diseases is expensive and can probably be undertaken much more economically (except perhaps in very large plants) by cooperative effort such as could be sponsored by a trade association, a medical school, a labor union, or a private foundation. The initial reporting of cases to state boards of health is one of the ways of accumulating sufficient data to supply argument for the undertaking of this type of research into preventive measures on a cooperative basis.

Fatigue Study.—A second research activity in the health field which under certain conditions may require medical assistance is the problem of excessive fatigue. While it may be comparatively easy to get testimony that workers "feel tired," evidence which is scientifically conclusive of a serious lessening of efficiency is secured only by the most exacting study. Fatigue in the sense here discussed follows the important fatigue experts in defining it as a diminution of working capacity due to length or intensity of previous activity. Evidence disclosing the extent or diminished working capacity is therefore needed. Such evidence is

[1] KOBER, G. M., and HAYHURST, E. R., "Industrial Health," p. 1. Every personnel worker, whether specialized in medicine or not, will do well to familiarize himself with the disease hazards which have been found to be typical in the industry in which he works. This reference book will give a comprehensive introduction to this subject.

not easily obtained in the ordinary plant or store, for it presupposes the existence of full production, accident, and sickness records, a steady flow of practically identical work under similar working conditions for a long enough period to admit comparison from one month to another, and done by enough of the same people to afford an adequate basis of comparison from one worker to another. It is further helpful if some comparison of output can be made under two different hourly schedules, as for example, a 54- and a 48-hour week.[1] In a word, a statistically convincing study of fatigue presupposes a correlation of the variable factors which it is exceedingly difficult to get in industry with the usual changes in orders, seasons, and workers.[2]

Even diminished working capacity may not be cause for alarm until that point is reached where complete recovery of vigor and health is impossible between one working period and the next. It is where workers are chronically tired out and no full recuperation takes place that the situation is dangerous. The lowered working capacity may then come to be considered the *normal* working capacity, and a process of slow devitalization is likely to be taking place. Or, if the effects of fatigue begin to be consciously recognized by the workers, they try to adjust themselves to the arduous toil by slowing down the working pace and resting at frequent intervals.

Reduction of excessive fatigue may require a reduction in working hours, but not necessarily. The case for the shorter work day (below eight hours) has other reasons to be urged for it than the reduction of fatigue, since it is frequently difficult in work done for that number of hours to show that any serious diminution of working capacity has taken place. The elimination of fatigue is rather to be sought in corrective efforts upon all the critically modifying factors—working conditions, the work content and incentive, types of machinery used, its speed of operation, and other items.

[1] This is precisely what is now offered in the valuable document entitled "Comparison of an Eight-hour Plant and a Ten-hour Plant," *Report* by Josephine Goldmark, Investigation by P. Sargant Florence, Public Health *Bull.* 106, U. S. Public Health Service, 1920.

See also Florence, P. Sargant, "Economics of Fatigue and Unrest"; and Vernon, H. M., "Industrial Fatigue and Efficiency."

[2] See Florence, P. Sargant, "Use of Factory Statistics in the Investigation of Industrial Fatigue," for a thorough statement of methods of utilizing factory statistics to detect fatigue.

In this volume, consideration of fatigue is narrowed into a section of the general discussion of health, not because the subject is unimportant, but because of the difficulty thus far of making objective studies which will have practical value in further reducing fatigue. Also, it is our conviction that if job analysis as subsequently discussed in this book is seriously undertaken, many of the factors which now contribute to the retention of unnecessary fatigue will be eliminated. Hence our whole emphasis in this connection is upon the constructive use of job analysis (See Chap. XVII).

A final suggestion is important. Fatigue is, after all, a resultant which shows in individuals. Any widely applied regulation of hours "rests upon a physiological basis devised for the average." But, cases will inevitably come to the attention of the personnel department where individual workers have "gone stale" or are "used up" even under a reasonable schedule of working hours. For such workers it is clear that special clinical attention is needed which only individual diagnosis can disclose. It is particularly true of executives that special attention is deserved for their fatigue problem to be sure that, while at work, they are being kept in a condition of really keen and eager fitness.

Fatigue study is thus a task not alone of finding a general level of working hours which is healthful, but of adapting each individual's working pace to his strength and powers of recuperation.

Cooperation between the Medical Section and Outside Agencies.—There is an obvious relation between good industrial management and the conditions of the local sewage system, local water and milk supply, local health department in its control of communicable diseases and its inspection of unsanitary dwellings and stores. So direct may this relation become that it is essential for the staff medical section to know local authorities and cooperate wherever possible in maintaining wholesome conditions. How much can be done toward raising the general health average through intelligent cooperation between industry and local health and school departments is illustrated by the Committee Report of the Framingham (Mass.) Community Health and Tuberculosis Demonstration. The efforts of this health crusade resulted in a drop in the tuberculosis death rate from "93 per 100,000 in 1917 to a rate corresponding to 76 for the first 5 months of 1919."

Health Work and Food.—More detailed consideration is subsequently given to the problem of company lunchrooms and restaurants. It is important to point out here, however, that the question of sufficient and proper nourishment to the worker is so important from the health standpoint that the medical department can well afford to interest itself in assuring the most efficient possible conduct of these facilities where they exist, and under certain conditions of encouraging their installation. Advice may usually be offered with good effect as to menus and as to individual selection of a balanced diet.

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CHAPTER IX

A SAFETY PROGRAM

The spread of workmen's compensation insurance and the obviously disruptive effect of serious accidents on shop morale have together contributed to the wide adoption of industrial safety programs. There is today wide recognition of the value of the whole safety-first movement. The difficulty is rather in assuring that companies are systematically and persistently hammering away at the several aspects of a preventive plan. The problem is now one of method rather than of intention. What, then, are the items in a procedure which will keep accidents at a minimum?

Causes of Accidents.—Accurate answer to this question is impossible until the causes of accidents are understood. The causes are of three kinds, and require three fairly distinct lines of procedure. Accidents may be due to mechanical, physiological, or psychological causes.

The mechanical deficiencies are obviously to a large extent remediable. Unguarded machinery, dangerous elevators, slippery floors, obstructed passageways, overspeeded fly wheels, and all the other familiar causes for which the worker is not in any way to blame have their cure readily at hand for the enterprise which will apply it.

The physiological causes underlying accidents are long hours of work, an unhealthy working environment, inadequate lighting or ventilation, tasks that are monotonous or arduous. The manner in which a worker handles himself or performs his duties is profoundly influenced by his bodily condition. A man who suffers from overstrain, worry, sickness, or excessive fatigue is not a safe person in the neighborhood of any accident hazard.

The psychological causes of accidents are ignorance, inexperience, carelessness, recklessness, lack of plant discipline and supervision.

To cope with these causes must be the responsibility of all groups in the organization; for, perfect as the mechanical preventive devices may be, they can never be a substitute for personal

caution and good sense. There are certain duties which managers, foremen, and workers must severally recognize.

Management's Responsibility.—The management is responsible for making structural and mechanical conditions safe. This involves a program of technical study followed by the proper mechanical installations; a program of education of superintendents, foremen, and workers; and, in order to carry out these two with consecutive and expert attention, the creation of a safety division in the personnel department. To this division should be given full responsibility for plant safety and for the preventive work in all directions.

Perhaps the most important responsibility of the management is to give evidence of its sincerity in urging safety first. Workers who are cautioned to be careful in one breath and are rushed, speeded up, and made to feel driven throughout the day in the next, realize that the management's protestations do not square with its actual policy. Workers on piece-rate operations are not impressed with the management's regard for safety if the regulations about safety devices cut down wages.

Foremen's Responsibility.—The effectiveness of a safety program depends in large part upon each foreman's willingness to follow it out in the right spirit. As the agent of the management in constant touch with the men actually on the job, he can be the determining factor in instilling the safety-first spirit. It is often his duty to instruct new workers in the use of safety devices and acquaint them with safety regulations. He should point out trade hazards and caution the new men against carelessness, disorder, or exposure to danger, for they are six times as liable to accidents as experienced men. He should also teach old employees transferred to new work how to avoid injury and to do their particular work in the safe way. The foreman's quiet suggestion will usually prove more helpful than disciplinary measures, and a kindly demonstration of right methods is usually more effective with the worker than a "bawling out."

The safety engineer can, therefore, profitably devote considerable personal attention to persuading foremen of the importance of attention to safety and to discussing methods with them. To recognize in some public way the foreman in whose department there are the fewest accidents is often useful.

To have a foreman's committee on accidents and their causes is another helpful method. The following testimony from one

important executive who has done effective work with his foremen is representative of the attitude taken in some of the corporations where safety work is most satisfactorily organized:

Who is there, in the existing methods of factory administration, who is better fitted to handle these fundamental requirements of safety than the foreman? He is with his men from morning until night and every day in the year; he is usually one of them; he knows the workmen's problems, he knows their moods, he knows his machinery and tools, and he knows the requirements of the work. If the foreman has a safety conscience and consciousness, his mind and eye will be so trained for safety that he will detect unsafe and careless methods on the part of his men on their first appearance. He will stamp out danger before it gets a hold.

In our own organization, we have come down to just one method—a safety committee consisting of every foreman in the plant. This group meets regularly to discuss our accident and safety problems. We look into every accident to see what lesson is to be learned. The lesson is thoroughly brought out in our foremen's safety meetings and applied, not only in the department where the accident occurred, but throughout the plant where similar accidents are possible.

We have convinced our foremen that our accident-prevention problem is in their hands and we look to them for results.

In order to make this application of responsibility as concrete as possible, we rate them annually on the basis of their lost-time accidents. Each year we make out a so-called "management report" for each foreman, covering his performance as regards quality of product, production, handling of men, and costs. If a department does not show progress in the accident problem, it is marked "subnormal" as to handling of men.

On the basis of performance as reflected in these management reports, we base our opinion of a foreman's fitness and efficiency, and determine therefrom his worthiness for promotion, wage advances, etc. Under this method of "yard-sticking" our foremen on accident prevention, it is surprising how interested our foremen are to have good accident records.

The question naturally arises as to how our own records reflect interest, efficiency, and performance on the part of our foremen in meeting our accident-prevention problem. In our Worcester plant, where from 2000 to 2500 are ordinarily employed in the shops, the time lost by employees due to accidents was 0.4 per cent in 1922 on the basis of 600,000 man-days worked, 0.45 per cent in 1923 on the basis of 750,000 man-days worked, and 0.22 per cent in 1924 on the basis of upwards of 500,000 man-days worked. Our work covers, too, a wide range of what is ordinarily termed dangerous occupations—a foundry with several hundred employees, a wood-working department with another two

hundred, and machine shops using all kinds of metal-working machinery and employing a thousand men.[1]

This same executive is responsible for a suggestive safety code of ethics, which has been prepared in several parts, applicable to the employment department, the workmen, and the foremen. The foremen's code is of such helpful value that it is reproduced below.[2]

[1] "The Most Important Factor for Safety Work in the Plant," an address delivered at the Fourth Annual State Conference of the Massachusetts Safety Council, Boston, May, 1925, by TINSLEY, JOHN F., Vice-president and General Manager, Crompton & Knowles Loom Works, Worcester, Mass., in *Monthly Labor Review*, pp. 2–3, U. S. Department of Labor, Bureau of Labor Statistics, August, 1925.

[2] "1. The foreman is the company's best safety man. You are right in the ranks with the man and you are in position to carry out the safety policies of the company.

2. When a man goes to work in your department, you should feel that his wife and family are placing their trust in you as a foreman and that you will send him home safe and uninjured when the day's work is done.

3. This is a sacred trust which every foreman holds, and it involves an unwritten pledge which you are in obligation bound to fill.

In order to meet the above responsibilities, it is necessary:

a. That you understand all the machinery and equipment in your department.

b. That you understand every danger point in your department.

c. That every dangerous condition receives immediate attention as soon as it develops.

d. That every man be warned of the dangers connected with his job.

e. That each man uses proper care in doing his work.

f. That each new man be carefully instructed before he starts to work, and that each man be instructed when he starts a new job, or one with which he has previously been unfamiliar.

g. That every man on your job is familiar with the safety rules in General Instructions No. 16.

h. That the instructing of employees in the hazards and safety rules must be done by you or your assistant and must, in no instance, be left for a clerk to do.

"You are directed to take disciplinary action when your employees disobey the safety rules or persist in working in an unsafe manner; you are directed to post the man's name, penalty inflicted, and the reason for this action in a conspicuous place where all workers in your department may see it." From "Importance of a 'Safety Conscience' in Accident Prevention," by TINSLEY, JOHN F., address before joint meeting of Industrial Safety School and Industrial Club of the Providence Safety Council on Dec. 9, 1925, in *Monthly Labor Review*, p. 131, U. S. Department of Labor, Bureau of Labor Statistics.

Workers' Responsibility.—Just as the management's attitude toward safety determines that of the foreman, the foreman's attitude in turn determines that of the manual workers. Especially has the foreman to meet a peculiar sort of callousness and bravado in his men which makes them take foolish and dangerous chances. It is frequently hard to rid a group of workers of the idea that they are mollycoddling themselves if they give proper concern to safe methods. Every graphic device is usually needed to dramatize to the worker the effects of carelessness on himself and on his family.

The worker's responsibility for accident prevention is in the direction of appreciating the significance of accidents to his fellows and to himself. It is his responsibility to keep alert, to obey the safety rules, to be a permanent committee of one on accident prevention.

A useful emphasis has been supplied in a valuable discussion of the mental causes of accidents.[1] The author points out in a way that makes his book of practical aid to all safety engineers and executives that, unless the psychological approach to this problem is kept constantly in mind, the workers will not be realizing and assuming their full responsibility. He discusses mental characteristics under such designations as "the puzzled mind," "the stubborn mind," "the diverted mind," "the troubled and tired mind," etc., and points out that workers afflicted in these ways simply cannot and will not assume the full measure of responsibility for preventing accidents.

Preventive Measures.—Among manual workers the work of accident prevention involves a continuous effort in a variety of ways to drive home the safety habit. To extend the safety idea all instruction should be given in simple, non-technical terms, with illustrations wherever possible. Every workman should carry the safety rule book for his information and he should be occasionally examined upon his knowledge of the specific rules used in his department. Where the foreman supervises non-English-speaking laborers, an interpreter should be used to assure their understanding of the hazards and necessary precautions. The simplest safety instructions should be repeated over and over again until they are fully understood.

Suggestions from Employees.—Workers' interest in being careful is frequently stimulated by inviting their suggestions for

[1] FISHER, BOYD, "Mental Causes of Accidents."

prevention. Employees may usually be asked to help correct physical plant defects or eliminate dangerous practices. For this purpose suggestion boxes with pads and pencils conveniently attached are sometimes placed throughout the factory. The North Western Railroad received in the first three years of its safety work 6000 suggestions from its workmen, and all but 200 were accepted and carried out. Many corporations award monthly prizes for the best suggestions to prevent accidents; and explain reasons for rejection to an unsuccessful suggester in order to retain his cooperation in safety work.

One large company with operating units in different parts of the country found that the accident rate in one craft in all their units was too high; and this despite the fact that a rigorous safety code covered the practices which they were supposed to observe. The company finally decided to put the revision of the safety code into the hands of a representative committee of men from this craft in all their operating units. This was done, and after six months of careful study, a new safety code, in some particulars more strict than the previous one, was promulgated by the workers' delegates. Their signatures were attached to the new code and it was sent broadcast throughout the different plants of the company as bearing the approval of the men themselves. In addition to this, there was established a policy of public announcement of accident rates by companies to secure the benefit of competitive effort to reduce accidents. The result of this whole campaign was an astonishing diminution in the rate, severity, and cost of accidents.

Safety Publicity.—Advertise safety! The works paper, the local press, the pay envelope may all be used as means of safety publicity. Cartoons or brief notices in simple language are best for this purpose. Insert cards bearing safety slogans may be slipped into the pay envelopes or placed in the time-card racks. In establishments employing large numbers of workers advertising is a fruitful method of planting seeds of caution to make men think and act safety.

Bulletin boards located in conspicuous places, or where workers congregate at lunch time, are among the most effective means of continuing safety interest. The boards must be attractively gotten up and kept "alive" by a frequent change of bulletins, illustrating graphically accidents due to the absence of safeguards and those caused by the workman's lack of care. Materials

include pictures of injured men, cartoons, departmental accident records, brief notices of serious accidents or measures designed for promoting health and safety in the industry. The proper use of bulletin boards everlastingly reminds the worker what he can do for his own protection.

The use of inter-company contests to reduce accidents has proved a most salutary method. Such a contest was held in 1925 in the paper-making industry, and included forty-one mills. Sixteen of these had a perfect score of no accidents, and three others failed to make this score only by the occurrence of a single accident in each mill.[1]

Safety Rallies.—Another permanent educational method in accident prevention is the safety rally for employees and their families. Here the doctrine of safety is preached in short lectures on safety in various trades; on habits of caution in workmen; occupational disease and its consequences; the value of safety and allied activities as an investment and detail of efficient organization. Stereopticon views are shown of safety devices in actual use at the shop; first-aid exhibits; "the reason why," or the right and wrong way of doing a job; "be careful first" suggestions illustrating accident-prevention work. Moving pictures are given on the "high cost of hurry," dangers of the street in stealing rides, crossing in front of or boarding moving cars, demonstrating the unsafe practices daily followed by railroad men.

Importance of Personal Hygiene.—Accident reports show that many serious and painful accidents come from infection through neglecting scratches or other slight injuries. These are apt to develop blood poisoning, which brings on complications making recovery difficult if not impossible; and the result is often the loss of the injured member. Employees should be taught to understand why minor injuries should receive immediate treatment at the factory. They should be taught to realize the seriousness of infection, and to appreciate the value of personal hygiene. To lead a clean life, have clean hands when eating, wear clean clothes, keep clean, and exercise personal caution are vital aids in a program of accident prevention.

Eloquent testimony as to the soundness of this emphasis is supplied in the following experience:

[1] Lansburgh, Richard H., Editor, "Industrial Safety," in *Annals* of the American Academy of Political and Social Science, p. 133, January, 1926.

Clean, healthy workers, who receive prompt, efficient, medical treatment, within one-half hour of the time of their injury, seldom develop any infection in the wound. In the author's factory an analysis of the last 2500 cases shows infection in but one-half of 1 per cent, and in these cases the men had not applied for treatment until twenty-four hours or more had elapsed from receipt of the injury. In no case was there an infection when the man had applied promptly for treatment and had not meddled with his dressing himself. One of the large railroads has the same record—one-half of 1 per cent of all wounds becoming infected. Six very large factories varying in product from rubber goods to shipbuilding reported a total of only 189 infections in 215,144 wounds, a most remarkable record of the present efficiency in guarding against infection.[1]

Personal Contacts.—Safety films are sometimes accompanied by a brief talk given by one of the company executives. Personal contacts between managers and men are often helpful in convincing employees that safety is a vital proposition. An illustration of the efficacy of such contacts is given by an eastern metal company. In the early days of its safety campaign the employees in the chipping room of its iron foundry absolutely refused to wear goggles. Eye injuries persistently occurred in that department in spite of safety posters quoting extracts of the state law; in spite of periodical visits of the state factory inspector; and in spite of threatened dismissal of offending employees. Finally, the safety engineer procured as many different varieties of safety goggles as he could find, showed them to the employees, let each man make his own selection, and fitted the goggles so carefully to each man's face as not to interfere with his comfort. This act convinced each employee that the safety engineer took a real personal interest in his welfare. The result was that during the following year no more lost-time accidents were reported from the chipping room.

Team work counts here as elsewhere. Accidents will usually decrease when everyone does his part. It is to the mutual interest of the company and the rank and file to work harmoniously in matters of safety. What then is a good plan of shop safety organization?

Company Safety Organization.—It is absolutely necessary that safety work should be given the same dignified position in

[1] Clark, W. Irving, "Guarding against Infection," Norton Company, Worcester, Mass., in *Annals* of the American Academy of Political and Social Science; "Industrial Safety" p. 171, January, 1926.

the organization as any other distinct personnel activity. To this end it should be given status as an administrative division of the personnel department under the leadership of a trained safety engineer. Operating officials of large concerns are usually too busy to keep stimulating fresh safety enthusiasm. Their human relations with the work force are not as close as can be those of the various line executives and the personnel workers. The foreman, the safety engineer, and the plant doctor, with their assistants, therefore, can better develop new ideas in accident prevention and apply or direct them. This delegation of safety work does not, of course, absolve other executives from interest in this problem. It is usually found useful from many points of view to have a variety of committees working at safety from different angles.

Safety Engineer.—The safety engineer should have general oversight of all departmental safety work. He should attend or follow up all committee meetings, plan the details of the work, receive reports, recommendations, suggestions, and keep all necessary statistical records and labor data. He should make monthly and special reports to the departmental chiefs or to other company executives. He also works in close relations with the chief engineer of the plant, of the department of mechanical maintenance, in devising and installing preventive guards of all sorts, and in preparing and posting danger signs. His personal contact with foremen and workmen cannot be too closely developed, for only as he stands in intimate relation to these people does he get their best cooperation in carrying out safety education through the various plant safety committees. The safety engineer can profitably devote considerable personal attention to persuading foremen and workers of the importance of attention to safety and to discussing methods with them.

Executives' Committee.—A central safety committee composed of executives, the manager or his assistant acting as chairman, the safety engineer as secretary, has in some plants general supervision over all safety work. It gathers information, establishes standards, formulates rules, considers reports and outlines all educational activities. From the reports received by this committee is measured the burden of accidents to the individual injured and to the business.

This central committee delegates some of its duties to the departmental safety committee in charge of the foreman. It

gives the foreman an active part by placing responsibility for safety and the enforcement of safety rules on him. The foreman's constant investigation of all accidents or injuries occurring among his men forms the basis of the monthly written accident report requested of him by this committee. It discusses with him recent accident experience and exchanges suggestions in regard to remedying conditions or reaching the worker. These meetings between central and departmental committees do much to line up foremen, and keep them interested and enthusiastic in upholding the company's safety campaign.

Workmen's Committees.—A most important feature of organized safety work is the workmen's safety committee, composed of several workers appointed by the foreman or elected by their fellows and rotating periodically in membership to allow each worker a turn. Workers who serve on a safety committee come naturally to feel that they are responsible for preventive measures and they thus become vitally interested.[1]

Each large department might well have its own committee, making regular shop inspections on company time, and examining into causes of accidents. These committees should give a written report to the safety director of their findings, with recommendations for eliminating plant hazards or improving dangerous methods. A worker serving on this committee learns—what no one can make him believe—that most accidents may be prevented only by active, willing cooperation on the part of employees. His committee experience in investigating causes of departmental accidents makes of him a missionary for safety, and thus helps to educate fellow workers in a precautionary attitude.

The administration of safety work in close cooperation with foremen's and workers' goups has a value over and above that of reducing accidents. Safety is a common interest of all groups in industry; and common efforts in its maintenance lead to common efforts in other directions—lead to a habit of joint action which can usefully be extended to other fields. The president of a large paper mill company said not long ago:

[1] The experience of the Clarke Thread Company, of Newark, N. J., is representative of results achieved by workmen's committees. As a result of 4 years of organized work through such committees, the frequency rate of major accidents was cut down from 18.29 in 1921 to 0.311 for the first 10 months of 1925; and the severity rate in the same period dropped from 2.08 to 0.014. See *Annals, op. cit.*, p. 140.

I would consider every dollar we have put into this safety work well spent even if it had not saved a life nor prevented an accident, because of the get-together feeling the movement has engendered in the plant.

Safety Codes.—A development of recent years which is having important consequences in furthering campaigns of prevention is the compilation and application of special safety codes for different types of hazard and different types of work. There are now not only national safety codes, which have been compiled under the auspices of the American Engineering Standards Committee for over forty types of hazard, but there are special safety codes also developed in the larger industrial states. The work required to compile these best practices and the publicity given to the finished result have been a most important factor in educating employers and safety engineers into knowledge of the best types of safety devices to utilize.[1]

Results of Safety Work.—An accurate impression of the remarkable results achieved in American industrial plants by the vigorous prosecution of safety campaigns in recent years is given in the following quotation:

> Achievement in accident prevention can be estimated in terms of reduction in frequency and severity, and, in like manner, in a reduction of lost time and in cost.
>
> Under a plan of competition, conducted by the Worcester County Safety Council, including 24,383 employees in 1924, as compared with 23,419 in 1923, the number of accidents was reduced from 1019 to 639, and the days lost were reduced from 16,764 to 10,819. Forty-five member firms competed, many of which were quite small.
>
> Three years of accident prevention, ending December 31, 1923, have resulted, in the Standard Oil Company of New Jersey, in a reduction of 5 per cent in the frequency rate of lost-time accidents, and a reduction of 52 per cent in the cost of accidents.
>
> In the American Smelting and Refining Company the number of disabling accidents decreased from 2749 in 1913 to 318 in 1921, or a 76 per cent decrease. Simon Guggenheim, the president of the company, says, "The figures show that the policy of the company pursued in the education of its employees along safety lines has been efficient, economical, and from the humane standpoint, a great achievement."
>
> The United States Steel Corporation has decreased its accident rate per thousand employees from 1906 to 1923 by 55.39 per cent during which time 36,374 employees have been saved from serious injury.

[1] See *Annals, op. cit.*, p. 51.

The disabling accident rate was 70.20 per cent less in 1923 than in 1912, and the aggregate number saved from injury, based on the 1912 rate, was nearly a quarter of a million.

The Sharon, Pennsylvania, plant of the National Malleable Castings Company won the 1924 inter-works safety contest with only 28 hours lost out of a total of 488,864 worked, a percentage of 0.0057.

In Henry Disston & Sons, Incorporated, Philadelphia, during 1924, the number of accidents causing lost time was only one-fifth of those in 1916, when an intensive safety campaign was started. With an average number of employees of 3000 there were only 71 accidents, resulting in 1174 days lost.

The insurance rate for steel manufacture of the same class as the Disston company is $1.20 for each $100 of wages paid. The rate of the company, however, was only 66 cents in 1924. Based on the above figures the company would have secured a saving of $75,000 on premiums alone in the last nine years.

The National Safety Council, in *Safe Practices*, Number 43, gives a list of nine companies with employees ranging from 500 to 17,000 whose reduction in days lost per thousand hours worked amounted on the average to over 70 per cent.

The reduction in cost has been quite remarkable, in a number of other companies. The Chattanooga Street Railways had an accident cost of $120,010 in 1917, which was reduced to $16,152 in the first six months of 1922, the percentage of accident cost to revenue being 17.8 in the former and 3.5 in the latter year.

In the Sperry Gyroscope Company the number of hours lost per employee per year was 19.66 in 1918 and 1.41 in 1920; while the compensation paid per employee per year was reduced from $5.21 to 22 cents in the same period. The plant employs 2000 workers and the reduction resulted from a carefully planned organization, a systematic method of carrying on the work, and a carefully selected personnel.

Mr. Simon Guggenheim, referring to the savings effected in his organization, said: "Had the accident rate not decreased from the rate of 1913 the Employers' Liability Fund expenditures would have totaled $2,454,133 instead of $1,380,982. As the amount spent for accident prevention was $602,124, a probable saving is thus effected, in the cost of accidents, or $778,858."[1]

Conclusion.—The best guarantee of safety in an organization is a body of careful and alert workers. Carefulness and alertness are intangible assets which are of great value not alone in reducing accidents but in effecting economies in other ways. Like other assets they may be secured and held only at a price. The

[1] HACKETT, J. D., "Health Maintenance in Industry," pp. 307–310.

price is absence of drive and fatigue, a policy throughout the works which sets life above dollars, an educational campaign which translates this policy into a demand for good-quality product made under wholesome conditions and by workers who feel themselves fairly treated.

A safety program which is to be successful cannot, in short, be separated from the personnel program as a whole. Until it is dominated by a humane point of view and directed by one who understands and values men as human beings, such a program is in danger of being perfunctory and sporadic.

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CHAPTER X

STANDARDS OF PHYSICAL WORKING CONDITIONS

The importance of safe, wholesome and attractive workplaces is today widely recognized. There can be neither maximum efficiency, mutual good will nor genuine self-respect in the working force if working conditions are dangerous, disagreeable, or unhealthy. It is to everyone's interest that the work environment conform to what are now well-established scientific standards. Other things being equal, the company with the best conditions gets the best class of employees, holds them longer, and turns out a better grade of product.

It is, therefore, the purpose to set forth here the items which should be considered in providing, inspecting, and improving working conditions, and to indicate the reasonable standard practice in connection with each. This chapter will thus serve a double purpose. It becomes in effect a check-list of the most important items in physical working conditions, and it is a statement of standards.

One or two words of explanation are first advisable, however. This chapter does not attempt to offer detailed technical advice on all the topics treated. The aim is rather to present an accurate statement of the best expert conclusions available on matters of working conditions, and to supply a guide to further sources of technical counsel. It would, for example, be unwise for the personnel worker to attempt independently to design or install an exhaust system; but the executive should be able to have an intelligent opinion as to whether a proposed system will satisfactorily meet his plant's needs. Mechanical engineers and the lighting, heating, or ventilating consultants are not infallible. Too many cases of grievous error in judgment and execution in factories and stores have come to notice for it to be advised that the expert should always be on top. He should be on tap, and his conclusions, like those of specialists in other fields, should be scrutinized by the general executives who have common sense, who know the workers' point of view, who combine some technical

knowledge with a knowledge of the rest of the organization's problem.

To call in the expert when in doubt is a good rule in matters of working conditions. Another is to know all you can yourself about the problem on which you seek advice.

Control over Working Conditions.—The administration of physical working conditions is assigned to the personnel department in the best organized plants. Matters relating to factory and store housekeeping are so clearly related to the workers' attitude and efficiency that no other department can function here so well. Once this responsibility for administering working conditions is properly allocated, the next job is to determine the items to be covered.

It may be objected that on many of these matters there are laws or governmental regulations which render any concern about them, except by the public factory inspector, superfluous. This attitude ignores several patent facts: First, that the legal standards are often vague, far from uniform, and minimum standards only; second, that factory inspection is by no means adequate in most states; and third, that the basis for determination of sound procedure in working conditions is not, and never can be, completely embodied in law. In short, while legal standards furnish an index to some widely accepted standards, they seldom comprise what any competent manager would regard as satisfactory standard practice.

A further possible objection is that standard conditions are all very well if one can build an entirely new plant, but that with an old plant little can be done. There are two aspects to this difficulty which should be noted: First, as to the older buildings; second, as to expense. Unquestionably, the new plant has a great advantage. It is even true—speaking from experience in over a score of industries—that working conditions in what have been regarded as the most disagreeable industries *can with new construction be made practically unobjectionable if thought and pains are expended. There is no inherent reason why in the newer factories today the workplace should be ugly, repellent, or unwholesome.*

This does not meet the problem of the old-fashioned buildings. Concerning them, it has been observed that the difficulty is that managers do not try to use to best advantage the equipment which they have. They seem to forget what wonders can be

performed by the constant application of soap and water and paint and broom. There is often less a crying need for new facilities than a need for the clean and orderly maintenance of those which exist.

Yet, this is not always true. There are cases where over a period of 25 years it will prove cheaper in dollars and cents to rebuild from the ground up *at once*, than to tinker here and there, and never have a thoroughly desirable workplace to show for the trouble. There are some corporations in which this procrastination has become a habit. Executives ward off every suggestion of improvement by pointing out that "in the new plant all will be different." The personnel executive has the real duty under such conditions of precipitating action. It was never truer than it is today that a modern building pays not simply from the process point of view, but also from that of personnel.

Not a little of the seeming hardship in installing new equipment in an old building lies in the fact that the cost is considered as a current expense rather than as part of the investment. This may be an error of attitude or of bookkeeping; and it is thus always useful to remind the hesitating executive that the cost of an outlay of $10,000 on permanent improvements should show on his annual statement as the cost of the interest charge on that amount.

To argue from statistics of labor turnover is never safe; but suppose, for illustration, that the personnel executive finds that the turnover, demonstrably traceable to bad building conditions, is costing the company $3000 a year. He can in such a case legitimately use the argument that if that $3000, instead of being frittered away in turnover, were used to pay interest on an investment in improved conditions, betterments worth $60,000 could be adopted, the turnover would decrease, and all the other benefits of good conditions would accrue immediately and permanently. In other words, the immediate out-of-pocket expense is not the only consideration. In sound business thinking today *working conditions which are right are an essential part of the going investment.*

Fire.—Inspection of the entire physical equipment in order to assure adequate protection to the property against loss by fire is usually taken in hand by the insurance companies and by local and state authorities. What concerns the personnel

worker, therefore, is the risk to *life* that may exist. The risk to property and to life of course, cannot be sharply separated. It is simply that the point of view of the conservation of *human* values is constantly emphasized in the work of this department.

Of prime importance is the question of *exits*. These should be of fire-proof material, whether within or outside the factory or store building. Failing that, they should be contained in a fireproof tower. Where more than ten workers are employed on a floor, there should be at least two exits, located at opposite ends of the room; and no exit should be more than 150 feet from the farthest work point in buildings protected by sprinklers, or 100 feet in buildings not so protected. The treads should be at least 10 inches wide with a rise of not more than $7\frac{3}{4}$ inches to a step. The width of the stairway should depend upon the number of people who must use it, but it should never be less than 44 inches. There should be hand rails on both sides. It is important to be sure that exits do not debouch into blind alleys, or locked basements, or other places where people might be trapped and smothered. They should lead either to the street or to a fireproof passageway leading to the street, such passageway to have a width not less than the aggregate width of the stairways leading to it.

Exit doors, of course, should open outward, should be unlocked during working hours, and should be equipped with the type of latch used in theater exits in which there is a metal rod across the entire door at the height of the waist, which is attached to the latch and which when pushed down releases the latch. Aisles to exits should be at least 4 feet wide and should at all times be unobstructed by trucks or materials.[1] Exits should be clearly marked by signs in languages familiar to the occupants of the room by day, and by red electric lights by night. These signs should always be kept clean and bright.

Monthly fire drills are frequently required by law; and if they are not, they should be adopted as standard practice. There should be fire-alarm bells which will give all workers the fire signal; and upon hearing it they should (according to previous instructions) proceed to the assigned exits. If the drill is held during working time, it is essential that piece workers be paid

[1] For careful study of aisles, especially in relation to crowding, see SPENCE, PETER, M. E., in The *Bull.* of the New York State Industrial Commission, vol. 4, pp. 68–69, January, 1919.

for the time lost; and it is assumed that week workers will be. There should be every inducement for the faithful carrying-out of a complete emptying of the building at these monthly drills. The location of the fire box and the emergency fire apparatus in each room or department should be known to all, as well as the methods of utilizing them. Especially where the nature of the process or material makes a sudden conflagration likely, there should be sufficient hand extinguishers, pails of sand or other effective means at hand which the workers know how to use. Maximum protection is only attained where a plant fire department is trained efficiently in the use of the apparatus, and where the interest of all in reducing the fire hazards has been aroused.

Valuable preventive work can be done by providing adequate *fireproof containers* for waste, scrap, and rubbish, and by seeing to it that these are emptied and the contents safely disposed of at regular intervals. Special problems arise in the handling of combustibles and explosives, which are usually covered by the regulations of the underwriters.

In summary, let what is true of every item of working conditions be emphasized here: *Some one executive should be assigned to the task of overseeing the work of fire prevention and reduction of hazards to life and property.* Then, and only then, will these matters receive the constant and systematic attention they deserve. *The allocation of responsibility with authority is the beginning of effective executive action.*

Accident.—In the previous chapter we have dwelt upon a safety-first program and in that connection have mentioned many of the points which must be considered in a survey of plant conditions which looks to the establishment of standard conditions of safety. There must, of course, be proper safety organization, executive and educational, throughout the plant.

The concern here is with those physical conditions and hazards to which special attention must be paid if the entire equipment is to be as safe as possible. Therefore, the familiar hazards will be considered briefly.

Elevators require special attention. They should operate in fireproof shafts, protected by spring bumpers at top and bottom. The car should be enclosed on all sides and on top by strong steel grilling and should carry an automatic locking device to be used when the car is being loaded, or when the operator leaves the car.

The gates to the shaft should cover the entire opening at each floor, preferably with a fireproof door which can be unlocked from the outside only.

Belting, especially high-speed, overhead transmission belting, should be equipped with shifting devices having automatic locks so that belts cannot work back onto the wheels and start the machinery. The safest method of fastening belting together is to glue the joints; the most dangerous is to use steel fasteners. It is important that there be either a direct method of stopping belting in each room or direct communication to the engine room so that power can be turned off at once if an accident has occurred.

Machines or wheels revolving at a rapid rate should, especially if there are projections from their surface, be enclosed in a stationary guard. Exposed gears, sprockets, and chains usually should be covered with steel wire mesh or solid steel casing. Circular saws, emery, and all types of abrasive wheels should be enclosed just as fully as the proper execution of the work allows. Calendering operations of all sorts require guards to prevent hands and clothing from being caught in the revolving rolls. On all such machines the guards should be painted a conspicuous color; they should be strong enough to hold under the severest conditions; they should be removable, but usually only by the machinist who repairs the machinery.

Punch and drill presses of all sorts and hydraulic cutting machines are a grave source of danger unless so arranged that the worker *must* remove both hands from the danger zone before the machine operates.

Floors are a hazard if they are splintery, slippery, or uneven. Floors wet with oil or water may be made safe by proper covering of rubber matting, wooden gratings, and by proper drainage. Obstacles on the floor such as tools, materials, upturned nails, etc., over which the worker may fall are usually the result of careless housekeeping, and are avoidable. Truck handles which project into aisles are a fruitful if minor cause of injury, which can be remedied by attaching a steel spring holder to the truck itself, in which the handle can be held securely upright out of everybody's way.

The gauging of the speed of fly wheels and exhaust fans of all sorts is important in the light of the number of explosions of such wheels which have been due to their running at higher than pre-

scribed speed. The normal revolutions per minute should be clearly posted beside each wheel and a reading of the speed gauge will then make comparison and regulation an easy matter.

Ladders should be used with great care. The only safe equipment is specially designed bases for the feet of the ladder, which, depending on the material of the floor, should have either steel pointed feet, inverted hollow rubber bases, or some other nonslip device.[1]

Other details which require constant watchfulness include the protection of workers in factory yards from moving freight cars, dangers incident to oiling machinery in motion, dangers of electric shock at switch boards, special hazards to the eye, hazards of open pits and vats, of traveling cranes and falling objects, of hot pipes and boilers located too nearly under the work places, and, finally, it must be remembered that, in addition, each industry has its own special hazards.

The following general rules of standard practice may be safely laid down:

Make factory equipment as "fool-proof" as possible. Accidents occur not when men are alert against a hazard "that any man in his senses simply could not get hurt from," as managers so often put it. Accidents happen in those moments when attention has wandered, fatigue set in, darkness come on; when workers are "fooling," or a fellow worker or truck has bumped into the employee; and it is against such moments that the protective devices are needed.

Have adequate first-aid kits available, near enough to the work place so that they will be used.

Have someone in each working group or department trained to administer first aid; but do not consider this person as substitute for a doctor. Call the doctor at once. Meanwhile, try to restore breathing, stop bleeding, and make the patient comfortable. Use a solution of iodine freely. It prevents infection, is healing and cleansing.

Have a pleasant, well-equipped, centrally located first-aid room with a trained nurse in attendance as much of the time as the size of the plant and character of the work require.

Have some one executive responsible for the prevention of accidents and the maintenance and installing of all accident-pre-

[1] See "The Principles and Practice of Safety," National Safety Council, Chicago, 1919, as well as other publications of this Society.

vention equipment. If there is a "safety engineer," he should report directly to the executive in charge of personnel.

Ventilation, Heating, and Humidity.—The problem of ventilation is to keep the air fresh, uncontaminated, and in motion. The problem of heating is to keep the air at a comfortable temperature. The problem of humidity is to keep the proportion of moisture in the air within certain healthy limits; otherwise, neither adequate ventilation nor good heating will give satisfactory results.

Scientific studies show that the influence of temperature upon the performance of physical work can be marked. An increase from 68 to 75°F. may cause a decrease of as much as 15 per cent in accomplishment. Also, it has been shown that warm, stale air is distinctly adverse to maximum production as compared with fresh, cool air.[1]

It is helpful to remember that man is in the first instance a physico-chemical engine. His body functions properly only under definitely prescribed conditions of external surroundings and internal functioning. With this in mind when evaluating working conditions, the executive will almost automatically possess an outlook which appreciates the significance of having plant equipment *always right.*

In regard, first, to ventilation, the removal of the grosser contaminations must be provided against. Fumes, vapors,

[1] The following is taken from "Ventilation," *Report* of the New York State Commission on Ventilation, pp. 197–198, New York, 1923.

"*Physical Work.*—We have demonstrated, on the other hand, a very marked and significant influence of atmospheric temperature upon the performance of physical work. An increase of room temperature from 20 to 24°C. (68 to 75°F.) caused a decrease of 15 per cent in the physical work performed by men who were not compelled to maximum effort, but were stimulated by a cash bonus; and an increase from 20 to 30°C. (68 to 86°F.) with 80 per cent relative humidity caused a decrease of 28 per cent in the physical work performed under conditions of maximum effort. The fall at 24°C. (75°F.) was most marked in the afternoon hours when fatigue effects were called into play.

"*Physical Work.*—In regard to the performance of physical work, on the other hand, there appeared to be a distinctly harmful influence of the vitiated air. Temperature and humidity being the same, our subjects performed 9 per cent less work in stale than in fresh air, a difference less marked than that produced by warm as compared with cool air (15 per cent), but apparently significant. When both unfavorable conditions were combined (in warm and stale air) only 77 per cent as much physical work was performed as in cool fresh air."

organic and inorganic dusts should be eliminated at the source by the installation of adequate exhaust pipes with hoods set as closely as possible over the point where the contamination is generated. The size of the exhaust pipes and the speed of the fan which creates the motion are matters requiring the most careful technical study, since upon these factors depends the thoroughness of the exhaustion.[1]

The provision of fresh air, properly conditioned, will usually in the larger plants and in stores require some artificial ventilation. In every plant the following provisions should be observed:

Each individual requires at least 300 cubic feet of free air space; and, depending on the character of the work, may require as high as 1000 cubic feet. Since he breathes in between 250 and 350 cubic feet of air in a day of eight hours, it is safer that two or three times that much new air should be supplied during working hours.

All air supplied should be free of dust, bacteria, and other contaminations.

Ample allowance should be made for the consumption of air by gas or oil used in the room, and additional ventilation be provided to offset this consumption.

Rapid air currents, that is, drafts, should be avoided. Yet, it is one of the cardinal points of good ventilation that there *be a free movement of air*. Experiments prove that the same air can be used again and again if only it is kept circulating.

"Excessive heat, vapor, and injurious substances arising from manufacturing process or other causes require to be locally removed."

"All toilets, lockers, and other rooms of similar character require positive exhaust ventilations."[2]

All heating surfaces should be located and arranged so that they cause no discomfort to workers.

All hot surfaces which it is not essential to expose should be insulated by non-conducting material. This should apply to piping and surfaces of machinery as well as to walls and floors which radiate excessive heat.

[1] See ERSKINE, LILLIAN, "Standardization of Working Essentials," The *Annals* of the American Academy of Political and Social Science, vol. 71, pp. 86–91, May, 1919.

See also "Mechanical Engineers' Handbook," 2d. ed., pp. 1411–1452.

[2] "Requirements and Standards upon Heating and Ventilation," U. S. Council of National Defense, Advisory Commission. Committee on Labor. Washington, Government Printing Office, 1919, pp. 14–15.

Whatever ventilating system is in use, a periodic, thorough airing out of the workroom is valuable—before work starts in the morning to remove the stuffiness, in the middle of the morning, at noon, and in the middle of the afternoon.

Executive responsibility for ventilation should be clearly fixed; yet the maximum possible freedom should be left to the workers in each room to determine the conditions under which they will work. If the conditions as so determined are manifestly unwholesome, the remedy is not in a display of authority but in education of the group along familiar hygienic lines.

The amount of heat required depends largely upon the character of the work. For active shop work, where the whole body is engaged, 58 to 60°F. is found to be satisfactory; at bench work and other less active work 65°F. is suitable; while in work at desks and counters 68 to 70°F. is required. In order to assure uniformity and regular control, an automatically recording thermometer should be in operation in each room and should be checked up at least twice a day by the person in charge of ventilation and heating.

The record of temperature will give a true picture of conditions only when correlated with a record of humidity. This correlation can be obtained easily by the use of a hygrometer which shows the per cent of humidity in relation to temperature. From the standard hygrometrical tables it is then easy to discover whether sufficient moisture exists.[1]

Various devices for artificial humidifying are on the market, but for a plant that can attack the whole ventilating problem at once, it is unquestionably desirable to install an air-conditioning

[1] Huntington, Ellsworth, in "Civilization and Climate," pp. 86–87, 1915 states:

"In winter the dampest days are unmistakably the times of greatest efficiency. The reason is twofold. In general, the temperature rises at times of excessive humidity, and this in itself is favorable. Moreover, the air when taken into the house, does not need to be warmed so much as under other conditions, and thus it remains comparatively moist.

"In the spring and fall, when the temperature ranges from freezing to 70°, with an average of about 50°F., the best work is performed with a relative humidity of about 75 per cent. In other words neither the dry nor the wet days are the best. The summer curve (of output) is the most complex of the three. It rises first to a maximum at 60 or 65 per cent then falls and once more rises to a higher maximum. We conclude that with an average temperature of 65 to 70° a relative humidity of about 60 per cent is desirable."

apparatus which in the same mechanism washes, warms, and moistens the air which is distributed. It is only where the nature of the product or process requires excessive moisture that some supplementary humidifying usually is needed.

Ordinarily, factories and office buildings do not provide air which is sufficiently moist. The heat dries the mucous membrane and leaves it in a condition of lowered resistance to germs. Managers are not disposed to recognize the need for adequate humidity; and the use of a hygrometer for a few weeks will usually show convincingly that most plants should make some specific provision for moistening their heated workrooms.

Lighting.—Deficiencies in factory lighting are estimated by illuminating engineers as accounting for as high as 18 per cent of the industrial accidents and 20 per cent loss in production where, as in textile plants, the work must be closely scrutinized. Bad lighting directly contributes to eye strain, headache, and nervous irritation. Its correction depends as much upon an expenditure of thought as of money. Adherence to a few fundamental principles can help greatly to eliminate the worst lighting difficulties.

There are three points to consider regarding both natural and artificial lighting—its sufficiency, its continuity, its diffusion.

The minimum amount of light required at different kinds of work has been fairly well standardized. Studies are given in terms of "foot candles," *i.e.*, the illumination on a surface one foot distant from a standard candle. The Illuminating Engineering Society is sponsor for the standards set forth in the following table:[1]

FOOT CANDLES ON THE SPACE OR AT THE WORK

(*a*) Roadways; yard thoroughfares	0.02
(*b*) Storage spaces; aisles and passageways in workrooms, excepting exits and passage leading thereto	0.25
(*c*) *Where discrimination of detail is not essential*. Spaces such as hallways, stairways; exits, and passages leading thereto; toilet rooms; elevator cars and landings. Work such as handling material of a coarse nature; grinding clay products; rough sorting; coal and ash handling; foundry charging.	2. – 5.

[1] Code of Lighting: "Factories, Mills, and Other Work Places," *Bull.* 331, U. S. Department of Labor, Bureau of Labor Statistics, Safety Code Series, April, 1923. Prepared under the sponsorship of Illuminating Engineering Society, New York, p. 3.

(*d*) *Where slight discrimination of detail is essential*..... 2. – 5.
Spaces such as stairways, passageways and other locations where there are exposed moving machines, hot pipes, or live electrical parts.
Work such as rough machining; rough assembling; rough bench work; rough forging; grain milling.

(*e*) *Where moderate discrimination of detail is essential*..... 5. –10.
Work such as machining; assembly work; bench work; fine core making in foundries; cigarette rolling.

(*f*) *Where close discrimination of detail is essential*..... 5. –10.
Work such as fine lathe work, pattern making; tool making; weaving light-colored silk or woolen textiles; office work; accounting; typewriting.

(*g*) *Where discrimination of minute detail is essential*.....10. –20.
Work such as watchmaking; engraving; drafting; sewing dark-colored material.

In order to secure daylight sufficient to conform to these standards, the following conditions must prevail:

Windows should be as large as possible, provided they do not create a glare; and should be so located that artificial light is necessary only when it would naturally be used. Natural light is the most normal and satisfactory for the human eye. Other things being equal, it is to be preferred and sought as a source of workroom illumination.

The top sash of the windows and all basement windows should be supplied with ribbed glass to increase the refraction of light into the center of the room.

Even though a translucent glass over the entire window might give better diffusion of the light, regard for the worker as a human being demands that the window panes at the level of the face be of transparent glass so that the worker can see out of doors. Minor as this point may seem, it is fundamental to the maintenance of a cheerful atmosphere.

Where curtains must be drawn to remove the glare due to direct rays of the sun, they should be arranged so as to pull halfway up from the bottom and halfway down from the top. This provides shade near the window and leaves the middle of the room still supplied with light from above.

Windows should be washed at the necessary regular intervals.

Reflecting surfaces outside, as, for example, an adjoining building or another section of the same building across a narrow court, should be painted a light color to increase the supply of light within the room.

Reflecting surfaces inside the plant—walls, ceilings, and, where practical, the machinery as well—should be painted a light color (preferably a soft, light green) to increase the light. Below the wainscoting, walls may be a darker color, in order to rest the eyes.

Work places, benches, and machinery should be placed *at right angles* to the window so that the light comes over the worker's shoulder onto his work. The persistent ignoring of this simple but fundamental rule probably accounts for existing eye strain more than any other one factor.

To secure proper *artificial* light, it is important to observe the following principles:

There should be sufficient light for each worker irrespective of his position at his work, in accordance with the standards suggested above. Lamps should be fixed and stationary.

"The type, size, and spacing of lamps and reflectors should be determined with special reference to the ceiling height and class of work in question."[1]

A system of general overhead lighting is to be preferred, with the use of reflectors which make the actual rays of light from the lamps semi-indirect or wholly indirect. The light should be strong enough and so located as to remove sharp shadows and to remove the necessity for individual lamps except in special cases.

Where it is necessary to use individual lamps, it is important that opaque reflectors be used and so affixed that the light does not shine in the worker's eyes.

Care should be taken to avoid glare from bright or polished reflecting surfaces.

Lamps should be operated from sources of supply which insure continuous and steady light. The flicker of some lamps where electricity is locally generated causes strain and fatigue.

Lamps and reflectors should be dusted and washed at regular intervals.

Emergency lamps should be provided, especially in passageways and exits, to assure reliable operation if for any reason the regular lighting fails. Those lamps should be supplied from sources wholly independent of the regular lighting.

Switches should be so located that "at least pilot or night lights may be turned on at the main points of entrance."[2]

[1] "Principles and Practice of Safety," p. 11.

[2] Code of Lighting., etc., p. 8.

Here again, the final word is: *Make some one executive responsible for these matters* and provide him with competent technical assistance so that the shop's lighting may be as effective, as cheerful, as scientific, and as economical as possible.

Noise and Vibration.—The harmful effects of excessive noise and vibration are only beginning to be realized. Noise, especially when it recurs frequently at irregular intervals, requires an adjustment of the worker's whole nervous system which is taxing and wasteful of energy. It distracts attention, creates an irritating feeling of "jumpiness" and generally reduces the equanimity and efficiency of the affected person. Where noise leaves off and vibration begins is not always easy to determine. The deciding factor is the number of sound waves per second, and "it is difficult to determine whether or not it is the ear alone or the whole body that detects the sound in vibration. Hence the annoyance from sound is not easily separated from the nervous exhaustion resulting from direct vibration."[1]

Testimony is general that severe vibration "tends to tire the women and make them nervous, with the result that they become irritable and inefficient." "In the case of women, it seemed impossible for them to stand the vibration even temporarily on account of its serious effects. We believe that employees working under such conditions as we had were not over two-thirds efficient." Other evidence might be cited to the same effect, but it is sufficient to call attention to the seriousness of the problem. The question is: What can be done about it?

The elimination of noise is of course impossible under present conditions in certain processes. Machines have not been built with an eye to quiet action, and until machine builders attack this problem the most acute cause will remain untouched. Nevertheless, there are certain things which may be done.

The first essential is to realize that all *unnecessary* noise should be done away with. The rubber-tiring of all trucks is a preventive measure of first importance. In many plants it will also help to have aisles covered with some sound-deadening composition, such as battleship linoleum. Where the near-by passage of trains is a noisy distraction as well as a cause of vibration, the remedy is not so easily at hand, although the better constructed

[1] "The Effects of Vibration in Structures," Aberthaw Construction Co., Boston, 1918. This and the following quotations are taken from this pioneer and suggestive preliminary study of vibration.

buildings have a great advantage here. The use of electric power drives from local motor units greatly lessens both noise and vibration, and has the added value of reducing the objectionable flicker of the daylight which a mass of overhead belting usually creates.

The elimination of vibration is fundamentally a matter of building construction. The structure has to be solidly based, and the evidence seems to point more and more to the use of reenforced concrete as the most non-vibrant material. Where the shaking is due to special machines, it is sometimes found necessary to build separate foundations for these machines. The use of some type of absorbent mat under machines also is helpful. Rubber mats and ground cork mats as bases for certain types of machines, as, for example, power sewing machines, reduce the vibration appreciably.

It must be admitted that the problem of noise and vibration is one which only newly is being studied. Until buildings are firmly anchored and soundproof, and until machinery is designed to work with less pounding impact, the greatest advances cannot be made.

Seating and Rest Rooms.—The value of seats for workers is recognized in the legal provisions which several states make for women workers; but the value is not sufficiently recognized for the right type of seating to be always provided. The wooden stool, the flat, enameled steel stool, and the chair with a flat board back are still widely used. A correct chair embodies the following features: an adjustable back with a padded rest (like that on a stenographer's chair) to support the worker immediately below the shoulder blades; an adjustable seat so that its height from the floor can be regulated (if made with a revolving seat the chair should have a locking device to prevent motion when the worker wants to be stationary); adjustable foot rests; and finally, a cushioned seat. In short, a good chair is one which reenforces and supports the body at those places where reenforcement means less exertion, better posture, and consequently a better functioning of the vital organs.

One excellent study of seating reaches the following two conclusions:[1]

> First, that posture must be varied. Continuous sitting and continuous standing are both harmful. Ideally, conditions should allow the

[1] "Industrial Posture and Seating," p. 6, prepared by the Bureau of Women in Industry, New York State Department of Labor, April, 1921.

worker to vary his position at will, because of the rest and the enormous saving of energy that comes from a change of position during working hours.

Second, that work conditions should be such that correct posture is possible.

(*a*) By providing a physiologically good chair.

(*b*) By assuring a proper relationship of the different parts of the work place.

There is no one chair that is best for all industrial processes. To determine what chair is best for a particular process, the nature of the work to be done, the position of supplies and finished work, the equipment at hand, *i.e.*, the height of bench, chair, place for foot rest etc., as well as the height of the individual worker—all these must be considered. To provide a good chair is not enough; the important thing is to bring all parts of the work place into the best possible relationship.

Chairs in a factory or store are not a luxury or a frill. People's physico-chemical engines can save energy by correct seating which can be better used in other directions. Also, to vary the posture from sitting to standing and from standing to sitting is restful and conserving of strength. For this reason, the tradition that the worker must not be found by his foreman sitting down must go the way of many other time-honored but unscientific notions. The worker should be encouraged to sit, and many jobs now done standing could be done with equal facility and much less fatigue if suitable chairs were provided.

The problem in most departments in the mercantile establishment is not so much the kind of seat, but the chance to use it. Investigations of department stores show that often there is a tacit understanding that no sales girl should be caught sitting down, even when her stock is in order, and no customer is waiting. Investigations have also shown a startling lack of seating facilities behind counters, in spite of the fact that laws exist in forty-seven states requiring them.[1]

The provision of rest rooms is often required by law where women are employed, although little, if anything, is specified about equipment. There should be a clear separation between dressing rooms and rest rooms. The practice of simply providing benches in the locker room is wholly inadequate to meet the needs for which a real rest room is designed; neither is it sufficient simply to use a lunch room for this purpose.

[1] "Industrial Posture and Seating," *op. cit.* p. 49.

Whether or not rest rooms should be available for the men depends upon the policy the company is prepared to adopt regarding the employees' use of off hours. If what is desired is a place to rest and restore vitality, then that need should dictate the provisions which are made. If a noon meeting place and social lounging room for all employees is desired, the required equipment is manifestly different. It is almost impossible to pronounce in general upon the provisions which a factory or store should make in this direction. The only point is that if the choice is for a *rest* room, no one should be ashamed of the decision. *It is exactly as good a business proposition to have a rest room for men as it is for women.* It was a scientific management expert who wrote that from a physiological point of view it would be a good thing for workers to recline at full length in the intervals between work,[1] because the change in distribution of blood pressure which is thus assured is the most effective recuperative measure known.

In providing a properly equipped rest room, the items to be considered are that the rest room be located away from the noise, odor, or other effects of work processes; the room should be quiet, cheerful, bright, clean, and restful in atmosphere, hangings, and furniture; the chairs and lounges should be comfortable and sufficient in number so that the worker will not have an attack of conscience if by occupying one for more than five minutes he deprives other workers of a chance to sit at all.

Finally, it is important that the employees should feel it to be *their room.* This feeling can be achieved in various ways; but there is nothing like responsibility to give a genuine sense of proprietorship. One way of securing this attitude is to have a committee of workers to administer this room, helping in the selection of its furnishings and in its maintenance.

As it works out today, some rest rooms are well used; some are used at the start and then forgotten; some are used very little. It is, of course, better from every point of view that workers, if they want to stretch out and sleep at noon (as many do), should sleep comfortably on a couch rather than on a work bench; but they must want to use the couch and they must feel that they are not getting a substitute for more wages when a rest room is provided. Under these conditions only will a rest room be permanently used and valued.

[1] GILBRETH, FRANK B., "Fatigue Study," p. 43.

There is a principle about the installation of all personnel equipment which should not be lost sight of; namely, that the provision of equipment of any sort for people *without some simultaneous attempt to create a sense of need and a knowledge by them of methods of its use* is not good business from any standpoint. Old-fashioned "welfare work" is in bad repute, partly because the workers were not taken into the confidence of the management in its administration, and it was therefore regarded as a paternalistic sop; and partly because it was conceived by workers as an effort to let "welfare" take the place of justice.

"Welfare work" so conceived merits little interest. The modern point of view looks rather in the direction of studying the elements in the problem of human relations which must be dealt with in order to have the factory or store operate efficiently. If in pursuit of that end the personnel worker has at times to go somewhat afield, he does this deliberately as an organic part of this work of sound management and not with a motive of philanthropy. *The provision of right working conditions is not welfare work. It is a plain business and human necessity.* Until corporations are prepared to provide right working surroundings, there is little use in launching into projects such as profit-sharing or other complex proposals which fundamentally presuppose an efficiently managed production organization in a physically well-equipped plant.

Lunch Rooms.—The policy to be followed in installing lunch rooms will be governed in practice by a number of factors such as the nearness of adequate restaurant facilities, the quality and price of food, and the local lunching habits. The importance of good food, well cooked, quickly served, and moderately priced is appreciated today by managers as never before. The result is that lunch rooms are being used more widely than ever and many companies even favor running them at a slight loss because of the other values received. It is impossible to lay down any principle here beyond advising that if a company is considering the wisdom of a restaurant installation, it should visit other comparable plants and get actual data on costs, equipment, menus, and the like. There is an elaborate technique in handling lunch rooms, which can be utilized with least outlay only by hiring experienced and competent people to set up and run them.

As a minimum, the equipment of the plant or store should provide some suitable place away from the work place where workers can warm up and eat food brought from home.

The following paragraphs are quoted from a report on the management of lunch rooms in stores, but the conclusions set forth are generally applicable:

> The management of the lunch room should be in the hands of a specialist, preferably a woman, qualified to run a homelike place to eat, to judge the right quality and right prices of foods, to handle the lunch-room employees and to operate the lunch room without loss. The manager of the lunch room may report either to the personnel manager, in whose field of activities employee services are included, or to a committee of employees, depending on the store policy as to the management of the lunch room.
>
> Employees have taken more interest and pride in their lunch room when they have had a share in its management. A committee of employees elected by the workers can be of considerable assistance to the manager of the lunch room in serving as a clearing house for all criticisms on service, prices, and food. Six stores have such a committee.
>
> In most stores, the management gives light, heat, space, and equipment, and meals are sold for the cost of labor and food. Most lunch-rooms have on this basis been able to operate without loss. The items to be charged against the lunch-room manager depend on the firm's policy. It is important that the lunch-room manager know what these are in order that he may work toward covering his expenses.

Cleaning.—The reaction of competent plant housekeeping upon the appearance and morale of a working force is in the long run of great benefit. Workers dress better, they are more cheerful, they are more careful in the disposal of waste and rubbish in plants where the watchword is cleanliness. Nor is this an impossible ideal for any plant to hold in view, it matters not how dirty the processes may be. This is another case where regular executive attention to the problem is the price of good results. From the experience of plants where the housekeeping has thus been made satisfactory the following hints can be learned:

There must be a separate cleaning staff under a cleaning foreman. This staff should get an hourly rate of pay high enough to assure a regular and conscientious force. The old notion that cleaners should get the lowest rate in the shop is the product of a time when bacteria were unknown and antiseptic methods of cleaning unheard of. It must be remembered that cleanliness

involves not simply the removal of dirt—misplaced matter; it involves also the minimizing of harmful germs.

Methods of dry sweeping should give way to some method which lays the dust before it is collected. There are several good dust layers on the market; even the use of wet sawdust, except for the fire hazard in storing dry sawdust, is better than dry sweeping. Vacuum cleaners are excellent where the nature of the work permits their use. Sweeping should be done as much as possible out of working hours.

There should be sufficient fireproof containers for waste material and rubbish, and these should be emptied at frequent intervals.

There should be *a regular schedule* for cleaning at the necessary intervals the workrooms, toilets, walls, ceilings, windows, lamps, reflectors, halls and stairways, yard, etc.

Drinking Water.—The value of an adequate supply of pure, cool drinking water will be quickly recognized, if the physico-chemical aspect of the problem is remembered.

> Water is a natural constituent of the body and is to be considered as a food, though not in the sense that it liberates energy. It aids in the absorption of food and carries away waste. It diminishes fatigue. It regulates body temperature and acts as a distributor of heat. And there seems to be no question but that the drinking of water lessens alcoholism.[1]

The first essential in having a supply of good water is to be sure the source is uncontaminated. Apart from the consideration of initial expense, it is clearly the most desirable standard practice to filter the water, to cool it to 50° by ammonia or other refrigerating process, and to distribute it throughout the plant in pipes covered with non-conducting material to bubbler fountains conveniently located so that there is one fountain for every forty workers. The fawcets at these bubblers should be double; one from which a glass can be filled, and the other a nozzle which will throw up a sufficient jet of water so that one can drink above the opening from a free flow of water. There are a number of satisfactory bubbler nozzles on the market, all operating on the principle that no chance is given for the worker's mouth to touch the opening through which the water comes.

[1] Darlington, Dr. Thomas, "Present Scope of Welfare Work in the Iron and Steel Industry," p. 6, Pamphlet, New York Iron and Steel Institute, 1914.

Where the process makes it difficult for the worker to leave his bench, some companies have wisely found it beneficial to have an attendant pass through the room every little while with water in individual drinking cups—much as the theater ushers pass water. They realize that it is almost impossible for workers to drink too much water; and therefore the more easy and attractive its drinking is made, the more it will be drunk and the better will be their health.

Sanitary Equipment.—Physiologically the provision of adequate, clean, and attractive toilets is of notable importance, especially because of what we know about the relation of their condition to constipation and venereal diseases. The law usually requires a closet to every twenty workers; but this is a minimum provision. Other desirable conditions to observe are the following:

The toilet rooms for men and women should be completely separate from each other, and from the work rooms; and should be clearly marked "Men," or "Women." There should be screens before the entrances of these rooms to conceal effectively their interiors from outside view.

Toilets should be adequately lighted at all times, and they should have adequate ventilation from outside the building. The room should be kept at a temperature of not less than 60°F. during working hours.

Floors of toilet rooms should be of some moisture-proof, smooth material; and walls should be kept covered with clean, light colored, non-absorbent paint or other moisture-proof material.

There should be free provision of toilet paper; and nearby basins in which to wash the hands.

There should be individual closets with wooden seats, with bowls of vitreous china or other approved material and adequate pressure for flushing. Each closet should occupy a separate compartment and be provided with a door opening outward.

The proper maintenance of toilets unquestionably offers occasional difficulties. These difficulties are not to be permanently overcome until managers realize that the abuse of toilet facilities occurs most frequently where *workers are unfamiliar with their proper use.* It cannot be too strongly emphasized in this as in other connections, that in those factories where workers are immigrants from rural regions of southern and eastern Europe, they

have never used modern plumbing arrangements. The problem is an educational one. Many large firms find it worth while to have an attendant always on hand in the toilet rooms. Where there is a medical staff, the method of operation and proper use of all modern plumbing devices should be explained in the course of the educative work in personal hygiene. For managers to make existing or past abuses of the toilet or washing facilities an excuse for continuing old and unsanitary equipment is to place responsibility on the wrong shoulders. The rank and file of workers are not inherently wanton or vicious or destructive in these matters; it is more often the case that they do not know any better.

Washing Facilities.—Standard practice in washing facilities depends in part upon the nature of the work. There is no doubt from a physiological point of view but that, where employees leave work at the end of the day wet through with perspiration, it is good hygiene for them to take a shower bath before going out doors. The fact that thousands of workers have done and still do otherwise does not lessen the hazard.

> The man who leaves the plant . . . saturated with sweat is 80 per cent more liable to respiratory disease during seven months of the year than the worker who has washed up and changed to street clothes in a properly heated room.[1]
>
> Shower baths affect the circulation of the blood, not only in the skin but in the whole body. They produce a redistribution of the blood in the body, and for the time being there is an actual change in the blood itself. Cold showers increase muscular capacity for work. Showers eliminate more rapidly the products of waste and so constitute one of the methods of relieving fatigue.[2]

Where the character of the work calls for them, it is, therefore, valuable to furnish showers and to encourage their use by legitimate educational methods. Several attendant conditions must, however, be assured if the use of the baths is to be satisfactory and permanent.

There should be a warm shower bathroom—one kept at all times of use at 80°. This room should adjoin the dressing room, should be clean, well lighted, and well ventilated. The floor of this room should be covered with removable rubber matting, wooden grating or some other material to keep the feet off the cold cement.

[1] Erskine, Lillian, *op. cit.*, p. 93.

[2] Darlington, Dr. Thomas, *op. cit.*, p. 7.

Hot and cold water should be provided, as well as soap. Towels should be furnished by the company upon deposit of five cents and should be laundered at least weekly at the company's expense.

There should be one shower to every eight or ten workers.

In plants where the work is less arduous but still dirty, the installation of lavatory basins or enamel troughs is requisite. Individual basins are, of course, more expensive to install and to maintain; and if used one basin to every five workers is needed.

> Where large numbers must be accommodated, . . . where the worker should strip to the waist in order to wash more thoroughly, a satisfactory substitute is a perforated pipe, conveying tempered water, installed above the middle of the trough at a height of 18 to 24 inches. Stoppers should be pulled so that all washing is done in running water; and a trough length of two feet to every five workers is also necessary.[1]

Here again the provision of soap and toweling is imperative. Whether paper or cloth towels are to be used will depend in large part on the company's willingness to bear the added expense of the cloth towels which on the whole are much to be preferred.

Where men chew tobacco at work it is necessary either to make some arrangement for cuspidors, or else prohibit chewing and spitting altogether. Promiscuous spitting about the plant can be reduced to a minimum with a little effort; and an important adjunct of a clean-up campaign is to have on the stairways and at the necessary work places an adequate supply of receptacles. It is also useful to have all floor corners painted white. Galvanized iron pans filled with a solution of lysol or some other disinfectant, light cardboard boxes filled with sawdust, boxes filled with sand—these are some of the prevailing methods of providing cuspidors. Care must be exercised to have sanitary disposal of the contents, which should be removed daily and burned.

One further detail deserves mention; the elimination of flies. There are industries, like the food-preparing trades, where flies are especially dangerous. The faithful use of screens, the use of giant fly-traps, and keeping all waste and rubbish carefully collected and burned—these work wonders in ridding the plant of this germ carrier.

[1] Erskine, Lillian, *op. cit.*, p. 93.

Dressing Rooms.—Standard practice in dressing rooms depends, as with washing facilities, on the nature of the work. Where a complete change of clothes has to be made, the need is for full-length, individual lockers. In trades where the work is especially disagreeable because of odors or dangerous because of dust or vapors, two dressing rooms are sometimes provided. The worker, in such cases, leaves his street clothes in his own locker and proceeds through a shower bathroom to the room where the work clothes are hung on racks over steam pipes. At night the work clothes are left to dry; the worker takes a bath, and proceeds to his locker and his street clothes with the traces of his work effectually eliminated.

Dressing rooms, of course, should be completely separated from the work room; and there should be completely separate rooms for men and women. There should be a bench between the rows of lockers, and if possible workers who leave at the same time should have alternate lockers to avoid congestion. The lockers themselves should have a steel grill bottom and top so that a draft of warm air from steam pipes beneath the lockers can continually circulate, thus drying the garments that are left hanging and preventing dust from settling. In size such lockers should measure 60 inches high by 12 inches wide by 15 inches deep; and they should be provided with a combination lock, like those used on safes, to do away with the bother of keys.

The importance of periodic fumigation of locker rooms and lockers should not be forgotten, since nothing so contributes to their non-use and unpopularity as a reputation for uncleanliness or vermin.

The provision of full-length individual lockers in a separate dressing room, however, is not essential under all conditions. Separate dressing rooms are sometimes required by law for women and these are essential if any change of clothing takes place. But open racks with coat hangers for coats, with individual lockers about 15 inches in each dimension for hats and lunches prove a satisfactory arrangement in many places. Similarly for men in plants where no complete change of clothes is necessary, it is usually adequate to every purpose if there are clean, dry, safe racks where street clothes may be hung. These places, however, should be wholly separated from the work room, where there is no chance for dust, dirt, or odor to harm the

clothes. But it is desirable for each worker to have some safe place to keep his more portable possessions—shoes, hat, lunch, etc.; and the provision of lockers 15 inches in each dimension provides for this in a satisfactory manner.

Health Equipment, Hospital, Etc.—The extent of a corporation's equipment in first-aid rooms, doctors' and nurses' offices, hospitals, special clinics, and laboratories will depend on other factors than the dictates of standard practice, since beyond certain legal minima, standards in this field depend on the extent of the management's interest in the health problem.

A separate first-aid room, however, should be provided in any plant having a hundred employees or over. Its equipment should include a cot, blankets, stretcher, running hot and cold water, screen, and the usual supply of bandages, antiseptics, and instruments. As the equipment becomes more elaborate, its purchase should be turned over to the nurse or doctor in charge.[1] One simple rule about the arrangement of first-aid rooms also can be usefully suggested. There should be a door or screen between the employees who are waiting to be attended and the one who is being ministered to. It is poor psychology for the prospective patient to witness the afflictions of his fellow worker who is under treatment.

Plant Exterior.—There is an unquestionable psychological value both with the community and with employees in having the exterior of buildings neat and attractive. There is no inherent reason why all buildings devoted to industrial uses should not be architecturally significant or at least inoffensive. The squalor of much factory environment today finds its reflection in a widespread attitude of indifference if not of downright hostility toward work. In consequence, one progressive employer after another is demonstrating that factory, store, and office buildings may be made varied, attractive, and even beautiful without undue expense.

Certain things that every corporation can and should do are to keep its own yard in order, its waste picked up, and its rubbish pile concealed or removed altogether. It can provide a sidewalk to the factory entrance on which one can walk dryshod at all times of the year. Again, the plant can be kept painted. Whether the management will go beyond this and cultivate a lawn,

[1] See, for example, HACKETT, J. D., "Health Maintenance in Industry," pp. 90, 107.

train vines against the factory walls, put in window boxes, and plant shade trees are less matters of standard practice than of taste. But if, without gaining the reputation of adorning a "whited sepulchre," the management can create an exterior of which all in the plant and in the community are proud, there is everything to gain.

In summary and conclusion, two essential points should be stressed: First, in considering the items of equipment necessary to supply a right working environment, the recommended practices have been based not upon "welfare" notions but upon patent facts of man's physiological characteristics and requirement.

Second, although a variety of seemingly minor items have been discussed, they do in the aggregate combine to be matters of critical importance. *Experience is conclusive that until the administration of all physical working conditions is centralized as one function, preferably under the personnel department, adequate and constant attention is not paid to them, and their proper maintenance is not assured.*

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CHAPTER XI

THE TRAINING OF EXECUTIVES

Emphasis in recent years on the quality of executive leadership has given rise to an extraordinary variety of attempts to train executives. The personnel point of view has undoubtedly fostered this, particularly because it has brought wide recognition that managerial work is at least half—and in many cases much more than half—a labor of leading, stimulating, inspiring, creating a team sense, of building morale. To manage is now seen to mean leading, not driving; to mean getting results by developing morale, not by arousing fear.

This conception of the work of executives gives a new importance both to the training of present executives and to the proper education of those who are to become such. For this reason the present chapter discusses the general problem and methods of handling this training, and the succeeding chapter deals intensively with the peculiar problems encountered in foreman instruction.

That managers frequently have been able in the past to hold their positions satisfactorily without much conscious preparation or special training argues nothing as to the future. For the management of industry today has become elaborate, specialized, complex; the business structure is difficult to understand, even for those who are thoroughly familiar with one department or function in its operation.

In short, top executive positions of leadership in modern industry are destined to depend increasingly upon education and specialized training. Especially do improvements in methods of company operation on the labor side involve all groups in training in a new point of view and the use of new methods. Managers must understand that administration is a science and an art and that, because this is so, by taking thought and by training they can make their own efforts more scientific and more human. Good management is not accidental; it is not today achieved by arbitrary rule-of-thumb methods. It is created by intelligent leadership based on a mastery of the scientific method and a

drawing on the fruitful administrative experiments of recent years. For executives of every rank the great need throughout industry is special training.

Any effort to cope with the present extent of executive incompetency implies some prior agreement as to the qualities the executive should possess. Suggestions as to these qualities are therefore included below. But we recognize that even if all managers are agreed that these are the desirable qualities, the problem of identifying them in a given individual still remains to be solved.

Qualities of the Successful Executive.—The efficient, successful executive has certain characteristics which suggest a criterion for use in the selection and training of industrial leaders.

He has a *good physical constitution.* He keeps himself well and fit, and makes the most of his physical vitality.

He has *character.* He is truthful, temperate, just, magnanimous, and sympathetic. He is honest. To be direct and straightforward with every man is a test of genuine executive ability.

He has *creative imagination.* The ablest leader must be able to project himself into the future. He is a practical idealist who not only dreams of new ways of doing things, but can actually do them. He thinks and lives in the future. Property and business are to him a means to an end; they are an expression of creative activity.

The business leader has *sound judgment.* He knows whether his ideas are workable, and when he plans for the future, he has common sense as well as imagination.

Every executive needs *courage* if he is to transform his ideas into action and put new processes and better methods into effect. Many a man has failed at leadership because he was timid, and because he tried to please everybody. A good manager stands his ground against the inertia of habit and prejudice.

A *sense of humor* is an essential asset. The executive must be able to see people and events on their comic side; and understand that most situations are bettered more by laughter than by weeping. An even temper, a hearty laugh, or a pleasant smile win the friendship and the cooperation even of those with whom he does not come into close contact.

Insight into human nature, *ability to understand men,* enables the manager to put himself into the place of his subordinates, and

to handle difficult situations with sympathy and justice. "To censure is easy and in the power of every man, but the true counselor should point out conduct which the present exigency demands."

The closer the executive works with people the more important is it for his attitude to be not merely one of understanding but one of *genuine interest in people.* The executive who said recently that the best leader loves those whom he leads probably voiced a fundamentally sound psychological truth.

The progressive business manager is *receptive.* He is open-minded and alert, ever ready to gather with unprejudiced judgment information on all subjects related to his work.

He has ability to collaborate with fellow executives and with those whom he directs. He surrounds himself with an organization designed to give all departments and all employees, the opportunity for sympathetic team work. In a word, he is a leader in *cooperation.*

The enormous mass of detail, due to the subdivision of modern industry, and the great distances which orders must often travel, make *organizing ability* an essential—organizing ability, however, which has regard not only for efficiency in production, but for the development of the individual worker.

> The art of management has been defined as knowing exactly what you want men to do, and then seeing that they do it in the best and cheapest way. No concise definition can fully describe an art, but the relations between employers and men form without question the most important part of this art.[1]

"The subtle efficiency of tact" is required of the executive. This quality expresses itself chiefly in the *courtesy* with which he meets and deals with all associates. The value of this attribute is emphasized more and more each day.

> Industry awaits the administrator who shall be all that a gentleman should be, who shall use his power with gentleness, and his wealth with imagination, and shall illuminate the world of private property with the light from the far away interests of the heart.[2]

The manager usually should possess an expert *technical knowledge* of the field under his immediate supervision, a full

[1] Taylor, F. W., "Shop Management," p. 21.
[2] Jones, E. D., "Business Administrator," p. 208.

acquaintance and familiarity with all the phases of the business in which he is engaged, and a clear perception of its relations to the rest of industry. He may be an authority on certain scientific processes, but he should be more than that; he should have a grasp of larger problems of economic organization and coordinate his own work with outside forces.

Finally, he can have all these and fail as an executive if he has not an unusual endowment of that indefinable quality of *nervous energy*. This subtle ability to stick at a job, to command and mobilize adequate physical and mental resources is literally the *sine qua non* of successful executive activity. It is an attribute which appears to be innate and even its relation to the usual idea of physical fitness appears not to be direct and close. No objective measure of it is yet available, but its presence is probably indicated by knowledge of the executive's history, and of the number, variety, and quality of the vocational and avocational activities he has customarily carried forward during his studying and working career.

Physical energy, character, creative imagination, sound judgment, courage, a sense of humor, receptivity, courtesy, technical knowledge, nervous energy, ability to cooperate with, to understand and to organize men—these are essential qualifications of the executive. By what training may they be fostered and developed, and what are the conditions necessary for the proper accomplishment of that training?

Essential Prerequisites for Training Leaders.—Time, equality of opportunity, and fair financial and non-financial rewards are three essential prerequisites for the successful instruction of executive leaders.

Educational work requires time. In order to be effective, it must spread over a long term, and it costs in real effort on the part of the student as well as the teacher. Men cannot strain through a hard day and then effectively pursue studies for self-improvement; the powers of thinking and producing have been diminished.

A shorter working day and instruction given on company time are the two solutions of this problem. Some concerns set aside a period of several weeks for intensive courses; others give a few hours a week for half a year, a whole year, or more; others grant their minor executives leaves of absence and pay their expenses at technical schools.

A fair opportunity for every qualified employee to take the training courses is the second essential. An organization which offers to carefully selected workers the greatest chance for personal development is promoting the highest type of training. Nepotism and other favoritism are fatal to executive morale. It should be evident that every man is advancing because of his ability.

A final prerequisite for the effective training of leaders is a just system of financial and non-financial rewards. Extraordinary efforts must be accompanied by increased remuneration or recognition; whether it should take the form of bonuses, profit-sharing, or special premiums, is a problem which is briefly considered elsewhere.

The non-financial rewards—advancement in honor, status, and responsibility—are usually as powerful a stimulus as an increase in salary. If managers will chart the possible steps in promotion and keep the way open, if they will select men to understudy the positions of influential executives, minor executives as a rule will take much initiative in carrying forward their own training in order to qualify for impending new responsibilities.

The Relation of the Head Executive to Training.—A valuable point has been emphasized in a recent address by the president of a large department store, in which he has insisted that the training program will be only as strong as the intelligent indorsement and support of it by the head of the organization. He lays down the following as the indispensable conditions of the relation of the chief executive to the carrying forward of the training program:[1]

First, he should inform himself as to the various possibilities and needs of training in his organization.

Second, he should not inaugurate a training program until he is ready to make it a major function of the organization, until he is ready to spend whatever money and hire whatever people are needed.

Third, he should make his attitude clear to the rest of his organization by formulating a definite, long-time program of instructional work.

[1] KAUFMANN, EDGAR J., President, Kaufmann Department Stores, Inc., "The Responsibility of the Chief Executive in a Training Program." This is abstracted from an address delivered at the Eighth Annual Conference of the Research Bureau for Retail Training, University of Pittsburgh, Feb. 6, 1926.

Fourth, the chief executive should set up a routine by which "training progress" records come to him in quite definite, concrete form, and he should study them with the same close attention which he gladly gives to the merchandise and financial reports.

Fifth, it is his duty to back and to stimulate training in private conversation and in public statements . . . In all of his conferences with department heads, he should remember to talk training just as he talks service, profits, turnover, and stocks. By this means, he can become a powerful aid to those who are directly responsible for the training program.

Sixth, the organization should not rely upon other companies to train its executives for the future.

Members of the Training Courses.—The selection of executives who are to take the training courses is an important matter. They should be chosen because of a conviction that they have potential power. There are several fields from which to draw. First and most significant is the company itself; second is the outside world—other companies, the colleges, and technical schools.

The organization itself, of course, is the principal source of supply. The men who are already minor executives need education as much as do the workers in the ranks. If they are to be efficient, if they are to keep abreast of the times, they must study and learn continually. Superintendents and their assistants, department managers with their staffs of buyers and salesmen, supervisors, inspectors, industrial experts from the planning, engineering, and employment departments, accountants and auditors from the clerical force, and the foremen, sub-foremen, gang bosses—all should from time to time be members of classes for organized instruction.

In order to assure impartial selection from among executives for this training and subsequent advancement, some gauge upon comparative ability is needed. The rating scales already discussed are exceedingly useful in this connection. Both these and intelligence tests can profitably be given to help select properly qualified subjects for training.

Other plants in the same line of work may also furnish candidates for executive training, if there is some organized plan of promoting people from one plant to another. Managers are beginning to realize the value not only to society but to their own plant of encouraging and assisting employees to get better

positions with other concerns. But a policy of advancing executives "up and out" requires special executive training if it is to be successfully carried into effect.

Finally, university and technical school graduates are being given a start largely at positions which call for general intelligence, and for ability to meet and handle people. They have been trained in the proper approach to new intellectual problems; they know how to generalize; they see the particular in relation to the whole; they are more mature and are able to advance faster than are men who have entered business earlier in life. But their general training usually must be supplemented by special intensive instruction in the corporation if their effectiveness is to be turned to account at once.

Administration of Training.—The administration of instruction must be considered in any discussion of executive training. In firms where training work is crucial for manual employees, it is often justifiable to have a special training director even if there are not over 700 or 800 employees. This director, of course, would take charge of the entire training work including the activities carried forward for executives. This means that he himself must be a man of adequate education; and as the size of the firm increases, he would have a corps of teachers and instructors under his direction.

It will be his responsibility to organize courses, supervise the preparation of course syllabuses, and to a certain extent himself undertake actual instruction work. So much depends upon the elaborateness of the training policy pursued that it is hardly possible to generalize further as to the responsibilities which he would assume. Also, it has proved difficult to find just the right people to carry on this work outside the instruction staffs of existing educational institutions; and, with men drawn from such institutions, the problem of equipping them with the necessary technical knowledge has proved a real one. In general, it has proved true that the unique quality which must be hired from the outside is teaching ability and technique, whereas the technical knowledge should be supplied within the organization.

The type of educational director selected depends also upon whether the major emphasis is upon executive training, job instruction, apprenticeship, or a general education. The first and last of these, namely, executive training and general education, unquestionably may be forwarded best by a trained educator.

If the company is fortunate, it may find within its own ranks individuals who can direct the second and third of these activities. In any case, it is important to emphasize pedagogic skill as the indispensable asset in the people who are going to carry on the corporation's training work.

Time of Training.—Executive instruction, whether it be in formal classes or informal group and personal conferences, usually should be carried forward on company time. Only so will it be undertaken with the seriousness which its importance to the company merits. As a compromise, where it is found difficult to draw executives away from their positions, such work may be carried on at the end of the day, half on company time and half on the individual's time.

Class Work.—All class work should be planned with reference, first to the work of the production, sales, or financial department which the official is in or is to enter; and, second, to learning the art of handling men. It should include subjects from the technical and liberal arts, from production and personnel fields of work. Classes are held in the plant itself, or in cooperation with a nearby university, a public school, a Y. M. C. A., etc. The classes should not be too large. The training of executives requires constant individual supervision.

Where the executive must be a specialist in the technical process which he has under his direction, he needs scientific courses. Lessons which tell the story of raw materials, and give their history from the crude substance to the finished product, and lessons in science, mathematics, and mechanical drawing are often essential.

Of the liberal arts, history, political science, sociology, philosophy, psychology, English, and public speaking are all valuable for the business executive. They give him a substantial basis upon which to form a fair, accurate, and unprejudiced judgment. They really entail, however, an extended period of training—one which has preferably begun before he entered industry.

The art of leading men is a problem which is more and more becoming a field embodying a technique of its own. In fact, in most plans of training, attention to different phases of the personnel problem appears to occupy at least half the time of training courses. There is additional justification for this because the art of dealing with people has developed significantly in recent years, and it is unquestionably true that the executive by taking

thought usually can improve greatly his ability to maintain the right kind of contacts with his staff. A number of recent books now supply excellent subject matter for specific case discussion and instruction in this subject.[1]

The instruction for those who would become executives may well comprehend a much broader training than could be given in class work. Lectures by high officials, shop talks, and committee meetings are all excellent mediums through which to start the discussion of any ethical problems which the men are interested to solve. There also may be courses of lectures, seminars, an organized use of the library, group conferences, committee systems, rotation in different positions, visits to plants and museums, and scientific society and study club meetings.

It is impossible to argue conclusively that particular subjects have unique value in helping to "build character." Character building, vital as it is where the development of executives is involved, is largely a by-product of the doing of any worth-while job well. Yet if the instructor is a man or a woman with lofty purposes, intelligent ideas, warm heart, and a keen devotion to his subject, he will inevitably impart a certain quality of moral earnestness which is precious and in need of extension.

Examples of Courses for Training Executives.—Corporation training plans for executives arise in response to such individual demands that no two are exactly alike. Some large companies which can afford to swing a big educational program organize squadrons of promising younger men or women who are taken over a period varying from 1 to 3 years through a course of training covering both actual work in one department after another and formal book instruction in related work. Candidates for this squadron are usually people who have shown promise as of executive caliber in the organization, or who are college or technical graduates brought in to work into executive positions.

Another type of course is of a cooperative character where a number of plants or stores bring their executives into one training

[1] See in this connection SCHELL, ERWIN H., "The Technique of Executive Control"; CRAIG, D. R., and CHARTERS, W. W., "Personal Leadership in Industry"; ANDREWS, LINCOLN C., "Manpower"; METCALF, H. C., Editor, "Scientific Foundations of Business Administration," Chap. IX, Constructive Conflict; Chap. X, The Giving of Orders; Chap. XI, Business as an Integrative Unity; Chap. XII, Power.

scheme under the special guidance of some university faculty member or especially equipped instructor. This type of cooperative executive training has been especially successful in Pittsburgh, Boston, and San Francisco. The following paragraph suggests something of the method employed in this field in Pittsburgh:

> For the past two years certain Pittsburgh stores cooperating with the Research Bureau for Retail Training have conducted an executive training course for young executives from selling and non-selling departments, and promising people who might become executives. In 1924–1925 two stores participated in the course and seventeen people graduated. In 1925–1926 four stores cooperated and fifty-six people graduated. The course consists of sixty lectures, including examinations. It is so planned that the Bureau conducts about two-thirds of the meetings, and the stores the other one-third. The Bureau lectures are held at night for members from all stores. The store lectures are held on store time. They are given by various executives chosen by the educational directors because of their fitness to handle specific topics. In order that the sixty meetings may work into a coordinated whole, the Bureau furnishes the teaching material for the store lectures. Outlines and assignments are prepared for the members of the course, and suggestion sheets are worked out for the speakers.[1]

The Retail Trade Board of the Boston Chamber of Commerce lately sponsored a lecture course, attended by two hundred executives, and given by a distinguished physician and neurologist on "Understanding People—a unique course of talks for executives and salespeople."

Another plan has been to secure competent instructors from near-by university schools of commerce and bring them into the plant at regular weekly intervals for conference with an executive group, usually following some definite line of thought or organization of material either worked out by the instructor or suggested by one of the standard texts in business management and organization.

Group Conferences.—The group conference, which in many concerns is both departmental and inter-departmental, may be made an effective educational factor. It is like a college seminar —a place in which topics of importance to everyone may be discussed. Company policies, standardization, the larger industrial interests of the plant and trade success should come up for

[1] From a typewritten memorandum.

open debate. Group conferences broaden the horizon, and develop the ability to think clearly and quickly, but they should have a leader to guide them. If each member feels that he is in a measure responsible for their success, they may be made a source of real professional inspiration.

Committee Systems.—The committee system may be made another important method for the development of executives. Such education comes as a by-product of the conduct of executive affairs in committee, but the conscious recognition of their educational value on the part of executives who direct committees can yield large educational benefits. The type of committee groupings recommended in Chap. XXV has as one of its major values the informing of the executives about contemplated policies and plans. An experienced leader should be in charge, the group should be small, and written reports, which will later form the basis for discussion, should be made. The points in which other plants are superior, and in which one's own excels should be considered. One large company, which sent a number of minor executives on an observation tour, as a result made several improvements in its own method of administration and production.

Inspection Trips.—Inspection trips, both to other plants and within the plant itself, give a broad, general view of the activities of the industry which is invaluable to the executive. They supplement class training and increase individual efficiency. They should be as carefully planned as is a class-room recitation and the executives should know where to go, what to see, what questions to ask, and what items to discuss.[1] Otherwise, they may be distracted and fail in the accomplishment of the object for which they are sent.

Museums, Trade Exhibits, Society Meetings, etc.—The more formal methods of training may be rounded out by the auxiliary instruction which is gained through membership in societies for improving industrial relations; through participation in business conventions; through visits to museums or the study of circulating collections of books and trade periodicals. A deliberate policy may well be encouraged of sending selected executives to technical and trade association conventions where relevant topics are being discussed. Such trips judiciously

[1] See Appendix A for outline of topics to be considered when the visit is to the personnel department.

awarded because of promising efforts of executives may supply a valuable incentive.

Dinners and Clubs.—Club meetings and dinner conferences at which problems are debated have their place in any educational program. Some manufacturers and mercantile houses have for years realized their value in introducing new ideas into the plant. Specialists are invited to these luncheons and dinners and discussions follow the meal.

Use is often made of an executives' dining room in which the executives are encouraged to lunch together; not, of course, for the formal discussion of problems; but it inevitably results that the indirect educational benefits of this informal daily meeting together are great. There is much to be said for this device as a method encouraging better acquaintance and personal interchange among executives.

Correspondence Courses.—Correspondence courses offer another method of training. Under suitable conditions and with the right kind of textbooks and supervision, they may be very successful. Their results depend, however, upon a high degree of determination to see the project through. If individuals or a group can take a course with the definite assurance of their executive superiors that their diplomas will count in securing them advancement, there is genuine likelihood that the training will be taken seriously. Indeed, it often may be worth a company's while to give some cash bonus to those who complete an approved course of correspondence study.

Under the provisions of the Smith-Hughes Act and State University Extension Laws, many states provide for conducting various correspondence classes on company premises. These states furnish teachers, clerical assistants, and textbooks on many subjects. Many companies carry on correspondence courses under these legislative provisions.

The quality of instruction furnished in this way and of the textbooks supplied is in many cases of a high order. This method may prove to be one of the least expensive and one of the most successful ways of getting executives embarked upon an adequate program of broad training activity.

Influence of the Demand for Business Leaders on the Colleges.—The demand for business leaders has had a decided influence on the curricula of the colleges and universities.

There is a growing movement in the direction of greater unity between business and education, since many of the great American industries have a wide range of executive positions for which college training is practically prerequisite.

The value of a college education for the modern manager is not, however, in the detailed knowledge about industry which it imparts, but in the ability it gives him to handle problems intelligently, scientifically, and with a proper sense of perspective as between economic and human values. Executives who seek to recruit their staffs from the universities will therefore be doing themselves the best service in the long run if they interest themselves in getting good technical courses into the graduate schools of business administration; and leave the undergraduate schools to provide the background of a truly liberal education in which the general fields of history, the natural sciences, and the social sciences are covered.

It promises to be increasingly true that the graduates of university schools of commerce and of the departments of administrative engineering of technical colleges will be one of the most valuable sources of supply for executive timber. The time has passed when these graduates enter industry with an inordinate estimation of their own value; and the responsibility is rather upon existing executives to supplement their academic training with a close personal supervision of the activities of the newcomer. The problem is to offer opportunities for varied experience and for reasonably prompt advancement so that ambitious and well-trained young men will not too quickly become discouraged with the slowness of their progress.

Conclusion.—The training of executives is, in the last analysis, only partially a responsibility of industry. Intelligent leadership in industry, as in the other fields of human effort, is a public asset. It will result in the production of more, better, and cheaper goods than we now have; and in a more humanized industrial order. Any educational project which takes individuals who either are or will be in directive positions in industry and makes them more competent in any way is usefully forwarding the movement to improve the quality of the administrative life of industry. Until that is improved the program of personnel policy and organization which this book is unfolding can never come to its fullest and finest development.

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CHAPTER XII

THE PROBLEM OF FOREMANSHIP

The problem of foremanship is twofold. It is a problem of function and of individual competency. What is the foreman expected to do? Is he competent to do it? If the answer in many cases is that he is not adequate to his task, a final question is: How can he be made so?

The fact that these questions are being widely asked at the present moment indicates appreciation of the importance of the foreman's position. Managers are realizing that a company's labor policy is no sounder than the actual working policy of each of its foremen. For it is literally true that in the eyes of the workers, the foreman *is* the company. He it is who embodies and exemplifies in concrete practice, the company's treatment of its employees. Is it any wonder, therefore, that everyone is expressing concern about the competency and the equipment of the foremen? Production executive joins with employment executive in demanding that the head of every department shall be a man qualified by native ability and by training for the responsible position he has assumed.

The elements of the problem of foremanship will be most readily understood if we undertake a brief examination into the foreman's character and attitude, and into the task he has before him. Little real progress will be made until the psychology of the average foreman is kept sympathetically in mind.

The Foreman's Psychology.—The attitude of the usual foreman is colored by four facts: His success in rising from the ranks; his lack of education; his fatigue; and his effort to overcome a sense of divided loyalty. To rise from the ranks is no mean achievement. It implies more than average physical and nervous energy, ability to "take knocks," technical knowledge, patience, docility, and ability to get work out of people, either by driving or persuasion. Almost inevitably an attitude toward one's fellow workers creeps in, which is a combination of disgust

at their inferiority, scorn at their lack of ambition, and pity at their failure to arrive. What has been observed of others is true of foremen: They are in danger of spurning "the rungs by which they did ascend." One may object that this characterization is overdrawn; but let the doubter really go behind the scenes in the minds of a number of foremen and something closely resembling this complex attitude will frequently be found.

The reason why this attitude may persist throughout life is that the foreman's standards of values are frequently restricted because of lack of education. He has usually left school at the completion of the grammar grades; and there is no one who is so confident in his own knowledge as the self-made man. The fact that he has done thus and so "for twenty years" and been successful is for him the best evidence that no better method of procedure need be sought. It frequently has been observed with truth by industrial consultants that the obstacle to changes and improvements comes more from foremen than from either managers or manual workers.

There is also a strong element of accumulated fatigue of body and mind that may affect the foreman's outlook. It is only by dint of hard work over long hours with generous donations of overtime and home work that his advance has been made. He is often the first man in his department in the morning and the last to leave it at night. Add to this the fact that too many and too diverse duties are often placed upon him, and it becomes literally true that the foreman is chronically tired out.

Finally, he has for some time been trying to throw his lot wholeheartedly with that of the company. His fellow workers, for reasons that they cannot always voice coherently, but which they feel strongly, have not approached their work in quite his loyal, wholehearted spirit. They have felt instinctively that on certain points their desires diverge from those of the company and give rise to demands for more leisure, more pay, greater security. The foreman has felt this divergence too; but he has suppressed it —has taken the deciding step and become a "company man." He knows only too well from experience the points at which he, as company representative, must try to persuade or cajole workers into conformity with the company's desires. In this situation it is hard to prevent an attitude of mutual suspicion in which foreman and workers are both playing a game to see which can give as little and get as much as possible.

The plain fact is, therefore, that unless the foreman is a remarkable fellow he is likely to be in the wrong mental attitude to deal with workers. It is not a matter for blame; the foreman is simply the victim in his own field of the rapid growth of the industrial system. His position nevertheless calls urgently for understanding and reeducation.

The Foreman's Job Today.—There is another element to consider—the changing character of the foreman's job. The all-around line foreman is still typical, especially in the smaller plants. His duties have been many. He has been expected to fix rates, fix costs, supervise machine installation and repair, hire workers, keep production records, inspect work, train new employees, advise on process changes, and secure the required output. He would indeed be a paragon who in this confusion of duties could be solicitous about the niceties of human relations. Inevitably in the past there has been overwork on the one hand and neglect of important functions on the other.

The pendulum began to swing rapidly to the other extreme, however, several years ago under the impetus of the scientific management conception of "functional foremanship." Instead of one all-powerful foreman, plants which adopted scientific management in modified form created a mechanical department to look out for machine maintenance, a research department to provide formulæ and standard practice, a cost department to figure costs, a planning department to plan and assign the work, a stores department to deliver materials, a personnel department to select and train workers. And the foreman found himself surrounded by specialists who were encroaching upon his preserves in every direction—apparently leaving him little to do, but after all insisting that he administer the plans which they proposed. In other words, although starting out with extensive staff functionalization with the foreman as a mere agent, the movement has been gradually to reinstate him in a position of real importance. The tendency is strongly toward a swing back from extreme centralized functionalization toward a more departmental functionalization which will be discussed at the end of this chapter.

The point at which many progressive managements find themselves today is one where the degree of functionalization is not altogether clear; where the foreman's job is, therefore, not specific and where his relation to the functional experts of the staff has

still to be worked out. Thus no answer to the question, how can the foreman be made adequate to his job, is possible until that job is definitely pictured. Then we can answer the question from three points of view: We can tell what the foreman should be, should know, and should do.

In other words, an analysis of the foreman's job is needed as it is today conceived in progressive plants—a statement of his duties, relationships, and responsibilities. First, as a vital part of the education and reorganization of the whole executive staff, it will be valuable for the executive (or outside consultant) who has it in charge to get each foreman to make a written statement of his conception of his job, in which he lists his duties as fully and specifically as possible. This will serve as a basis for comparison, but can be considered as nothing more than suggestive since the definite formulation of the duties of any job is a difficult analytical task, one requiring close observation over a period of time to bring it to accurate completion.

The Foreman's Function.—The real problem is to see what the foreman's work is in relation to that of such staff executives as those in charge of planning, efficiency, costs, employment, training, etc. It probably will be discovered that the foreman is in almost continual contact with one or another of these functionaries. Either they are referring to him for information or he to them for advice; but it is usually implicit in the relationship that *he is the man who is charged with the responsibility for running his department;* for seeing to it that the several special methods and procedures installed at the behest of the staff experts *keep running smoothly and effectively.* They are definitely advisory and consultative in function; he is the executive. This by no means exhausts the problem of his relation to them. There will be a return to this question in discussion of what the foreman should do.

Briefly, the foreman is responsible for the *coordination of the work* of those under him, with the work of those in preceding and succeeding departments, and with that of the several staff executives. At this time all reference to those few plants where the purely functional foreman operates, is left out of account. This is the "departmental functionalization" which will be discussed later. He is, then, the directive head, the one who ordinarily has the last word in deciding how adopted policies shall be executed. This summary statement of his duties is no substitute

for a job analysis, which should include a statement of the specific knowledge about technique and process necessary for the foreman, the relative time required by different elements of this job, a statement of the mental qualifications and aptitudes especially required, etc.; but this conception of the foreman *as the executive head of a department*, working in close conjunction with a variety of special advisory experts, does define his function in a way which will probably be looked upon as sound organization for some time to come.

With this conception in mind we can proceed to discuss the necessary qualifications of the foreman; what he should be, know and do.

Clearly he should be a man possessing qualities of leadership and executive ability. He should be able to give instructions in a way that commands not simply respect but confidence, good will, and willingness to comply. The necessary extent of his technical knowledge will vary considerably with the industry, but it is surely true that the best workman does not necessarily make the best foreman. Selection of the properly qualified person will be made, of course, in the light of the job analysis of the foreman's position in each department. Objective methods of testing intelligence and of comparative rating may help to make these selections less arbitrary and more uniformly successful.[1] Selective tests and the use of rating scales for executives are dealt with in Chap. VI.

The task of selecting the foreman should be comparatively simple, since the selective work should be done at an earlier stage. There would be normally one or two "logical candidates" for the job. It usually will be true that it is among gang bosses, straw bosses, and foreman's assistants that the material out of which foremen are made is to be found. These lesser executives, in fact, should be picked with this ultimate promotion in mind. To have them understudy the foreman and act occasionally in his place when he is absent will help to make the selective process more sure. The workers who have directive interests and ability will thus tend to come to the front in perfectly natural ways if the foremen and those responsible for training executives are watchful and careful in the advancement of workers to positions as gang leaders and assistants.

[1] See specimen foremen's rating scale, BLOOMFIELD, D., "Employment Management," pp. 220–221.

One important condition of having the selection and training of foremen effectively handled *is to assign responsibility for supervising to the personnel department.* To be sure, the selection of foremen should never be made without the closest conference with the plant-and-process superintendent, since the foremen's duties divide fairly equally between problems of process and problems of personnel; but the work of continually looking about in the shop for potential executive timber and of giving it encouragement is a job in the field of human relations.

The foreman, therefore, should be the man in the department who is most respected as leader, who is regarded as the coordinator of the efforts of his associates and the guiding mind of the numerous activities in his room. The personnel department should be responsible for picking out understudies and assistants who are believed to be capable of advancement, and should be active in assisting native ability by formal instruction.

Instruction for Foremanship.—The work of instruction divides itself into two parts: training the man who is becoming a foreman, and training those already on the job.

As to the first, there is a growing body of interesting and suggestive experience. The method of formal understudy by an assistant foreman is in itself educational; but the assistant's progress will be much faster if his shop experience is supplemented and interpreted in various ways. For example, where technical evening schools are available, he should be encouraged to attend them, and efforts should be made by acquaintance with the school's teacher to relate his theoretical instruction and his practical duties as closely as possible. The value of regular class-room instruction for assistant foremen within the organization is also great. The subject matter of the curriculum need not differ substantially from that in similar courses given to foremen. This study should be supplemented by the shifting of the understudy at regular 3- or 6-month intervals from department to department to get a working knowledge of the plant and processes as a whole.

In this training plan, a 3-month period in the personnel department may well be included, since essential points in the success of the prospective foreman are that he have a cordial and understanding relation with that department, and that he absorb and adopt as much as possible of the spirit and point of view with which it works. The personnel manager consequently

should aim to have the understudy see and participate in as many different phases of the human-relations work as possible. For example, he may be required to interview for a month, help in training for a month, help administer personal adjustments and service features, and so on. Finally, wherever possible, it is of great value to let the student see the inside of other plants. No one thing can so completely efface the complacency of the man who has always worked in only one or two shops, as to see the different, and often better, methods in use elsewhere.

The training of foremen themselves is happily receiving wide attention today.

Experience has disclosed a wide variety of methods and plans which have been more or less successful under different conditions. Typically, the following methods have been found of value:

Foremen's classes meet *preferably on company time* toward the end of the afternoon, for formal instruction. This instruction is given by a trained teacher, selected, first, because of his ability to present a subject or conduct a discussion in a clear, orderly, and interesting fashion; and, second, because of his acquaintance with the particular industry.

The method of instruction should be one adapted to adults; that is, it should be more a *conference than a class.* The instructor should aim not so much to deliver himself of knowledge as to bring out, organize, and make vivid the knowledge which is often to a large extent already present in the group. More ground may be covered and more systematic presentation assured, if outside well-selected reading, amounting to not over seventy or eighty pages a week, is assigned.

Classes should be small, containing not more than twenty or twenty-five members. Sessions should be held at least weekly and preferably twice a week, running over a period of 15 or 20 weeks. It is better to run different courses over a number of years than to work the foremen to the point of fatigue and lack of interest in one long exhaustive course.

Enrollment should be optional, but once enrolled the foreman should be expected to attend regularly. With a little personal work, it should be possible to bring practically all the minor executives to the point of attendance.

Three broad types of instruction method are in use.

Leaving out of account the purely superficial efforts of some companies that delude themselves with the notion they are *training* their

foremen by holding occasional foremen's meetings or plant gatherings, there are three main plans from which the average concern may make a choice.

The first may be roughly called the straight "lecture plan," and consists of a series of lectures by university professors, industrial engineers, inspirational speakers, or plant executives. Usually, the talks are mimeographed and copies distributed among the members of the class afterward. As nearly as can be calculated, about 2900 foremen in American industries have received instruction under this method, which in its successive contacts through incoordinate lecturers does not cut very deeply into the foreman's mind, and therefore does not accomplish much.

The second plan is to have a well-qualified executive or trained leader conduct a series of conference discussions at which various phases of plant management are thrashed out by the "case method." Perhaps as many as 3100 foremen have been coached in this way, in small groups. The system has been fairly successful in a few plants, depending upon the ability of the man in charge to draw out the men's thoughts and make the sessions *continually interesting*. The conference method is a good follow-up to a prior well-conducted study course which has aroused general interest; but, when undertaken without a sufficient apperceptive mass, or ideas in the minds of the discussers, it is not resultful.

The third method in general use is the "standard group study course," which is frankly preliminary, engages the entire supervisory force in a fairly intensive study of production fundamentals, and prepares the men to get the maximum good out of future continuation conferences. It is designed to unify the ideas of the organization on sound principles of foremanship of employee contacts; to arouse the men's enthusiasm for the study of production problems, and to plant in their minds certain broad knowledge on which to base more specialized study. It is a method that has had far wider adoption than the other plans; probably more than ten times as many foremen have been trained under it as under either of the others. The chief aim of the standard method is to "put over" a study program with men who would not normally seek self-improvement. In the case of the many small plants it has been found possible to form resident groups of foremen drawn from a number of such establishments.[1]

The choice of subject matter for the curriculum depends on local needs and on previous training activities. The objectives of the course are the first thing to get clear about; that is, what is desired to be accomplished? It is usually necessary to narrow

[1] CALDER, JOHN, "Experiences in Foremen Training," *Personnel Administration*, pp. 8–9, June, 1922.

these objectives so that too much or too many different results are not expected from any one course unit. An educational program that contemplates other courses in succeeding winters allows a more intensive method of instruction which is probably to be preferred. Typical subjects for courses cover the following range: business economics, the company's history, factory or store management and production control, principles of leadership, management of men, technical processes, and the work of foremanship.

It will often be useful to make use of technical experts such as buyers, chemists, accountants, etc. to explain their several fields. Visits within the plant and to other plants, the use of moving pictures, models, samples, and other graphic methods of showing ideas at work are also valuable.

The dynamic nature of the foreman's job hardly can be overstressed in the course of all the educational work. There is real danger that when surrounded by staff experts he will assume that they and not he should be the initiators. Hence, he should be made to realize that he is the one who, if he is energetic, ingenious, and imaginative, is peculiarly in a position to see how his department as a whole could be run more economically and more productively. Indeed, the entire educational program is not to assure that the organization as it is shall run smoothly, *but that it shall become, under the creative interest of all those at work, a far more effective instrument of production.*

It has been found in some plants that there is great value in a weekly foremen's conference at which one of the number reads a prepared paper on some aspect of his work, and then leads a discussion on it. The shortcoming of this method is that it does not provide sufficient leadership to hold the group to an organized and cumulatively valuable train of thought. It ignores important pedagogical values, which can be kept constantly in sight only where a real teacher is employed.

It may be objected that in small plants this type of educational work, while necessary, would not warrant the full-time use of a training executive. This may be true, in which case there are two or three possible ways out: cooperating with other local factories to bring in a teacher; securing the service of a teacher on part time to lay out the curriculum and direct the classes; or having local educational agencies start special foremen's classes in the evening.

No factory is too small, however, to have a well-selected technical library with files of the current technical and trade journals on hand. The personnel department should make it its business to see that these trade papers are circulated and read —especially marked articles of particular value.

The one most serious weakness in the present handling of foreman training is in the follow-up after a course has been given. The assumption often is that one course is enough and that no further formal instruction can be encouraged for several years after a course is given. The following comment is an accurate reflection of the situation:

> It is truly amazing to note in the lack of a definite "follow-up" after a single course had been given. Such lack of planning with regard to material, processes, or equipment would not be tolerated for a minute by these same companies. It is even more amazing when it is considered that an overwhelming majority testify that the individual courses given have paid dividends.
>
> A number frankly admitted that they were anxious to continue but ran out of material and desired suggestions; others, that they simply neglected, in favor of exigencies arising in the immediate past, what they conceded to be an important function, but one seemingly easy to postpone.[1]

Just how this difficulty is to be corrected in every case may not be easy to prescribe; but if the aim with the first course is clearly kept limited to the accomplishment of one part of an educational program, it is possible, after the summer interval, to undertake another series of discussions and conferences with a wholly different problem under consideration. In this way the interest and enthusiasm of foremen may again be quickened and renewed.

The educational value of a foremen's executive council is noteworthy; but it is an education which comes rather in the doing than by some consciously educational process. Therefore, its consideration is deferred for the moment.

The development of *esprit de corps* among foremen is so valuable that it pays to strive consciously for its creation. It has to be remembered that "the only kind of organization that will have a permanent *esprit de corps* is the kind where the creative power of the individual is free to express his real inner spirit." The educational work, therefore, will be most fruitful if it is

[1] "Foremanship," p. 24, Published by Department of Manufacture, Chamber of Commerce of the United States, Washington, D. C., October, 1925.

supplemented by a moderate amount of purely social organization. A foremen's club for social purposes should supply this need. Monthly evening meetings at which congenial and varied entertainment is provided, always help toward the creation of friendly feeling. They serve the legitimate purpose of developing a *sense of fellowship among working colleagues*—a sense at once pleasurable and worth while in itself, and productive of greater harmony in the work of the organization. These gatherings, however, should be as autonomous as possible; any leadership which may be necessary for the personnel manager to exert should be by methods of indirection and suggestion rather than by active direction. Nor should it be thought that there is anything dubious about such a method; it is essentially the method of democracy. It is the method which realizes that only as the active and forceful agents in an organization are supplied with good ideas, which they submit for popular approval and consent, can progress take place.

Indeed, much of the most effective work of the personnel manager in all departments of his activity will be done in this indirect way. *He will plant the seed of new ideas in the minds of those who have executive responsibility, and then will not be too eager to claim credit for the ideas when the executive or foreman appears several weeks or months later and proposes them as his own.*

There are many variants upon this proposal for occasional social activities among foremen; dinners with the head executives, bowling clubs, theater parties, annual picnics and the like. All can serve a good purpose; yet it is important not to overdo them. It would be most unwise for the company to try to supply the social life, either of its minor executives or its workers. This would be a narrowing experience, altogether too artificial and constricted in the social and recreational group set up.

An increasing number of corporations are finding educational value in relieving the foremen of his departmental duties and using him in the personnel department for a period of three months. Where this department is ably led and is functioning smoothly, such a temporary transfer has benefits for both sides, and the eventual result from the human relations point of view is that all the foremen have helped the employment side of the business to function, and have seen at first hand its problems and difficulties. Inasmuch as the watchword of successful personnel work is not authority but salesmanship, it should be appreciated

that the foreman can be better "sold" to personnel work in this way than by any amount of theoretical discussion.

In short, there is a variety of methods, but one object; numerous roads, but one goal. And that goal is to have foremen in the organization qualified in every respect for the executive responsibilities they are expected to assume. Those qualifications are to be secured not by lamenting over the shortcomings of the foremen, but by taking action to correct them.

The Foremen and Staff Experts.—One of the prime training channels comes in *proper organization for doing the job itself. Executive action may always be educational to the executive, if only he will act after taking counsel with those who have given special problems special study.* In a company of any size this may be achieved, at least in the beginning, only by a rather unusual degree of conscious organization among staff and line executives. We come back, therefore, to the question: What should the foremen do in order to assure effective coordination of expert advice and executive direction? The answer to this involves two other problems: First, the foreman's relation to staff executives, other foremen, and workers; second, the organization of those relationships in such a manner that they are always mutually effective and harmonious.

The first problem involves the moot question of the relation of the foreman to efficiency experts, planning experts, process experts, cost and rate experts, to say nothing of the experts in the field of personnel—all full of ideas for improvements; all anxious to get their ideas installed at once. At the head of each department stands an executive who, nine times out of ten, is on the defensive as soon as a new idea is broached. Under these conditions how are changes to be effected?

Full answer to this whole question is reserved for discussion in Chap. XXV, on the coordination of departments. How the larger staff policies are decided upon and transmitted to the whole organization will there be extensively discussed. It is assumed here that these policies have been decided and that those which remain to be decided relate to details of methods. If the discussion seems to imply an over-organization, it should be remembered that this is deliberately done in order to get the several functions and relationships clearly distinguished.

Uses of a Foremen's Executive Council.—The foremen's council has already been mentioned. This should be the organ-

ized body of all the foremen, who meet weekly or bi-weekly to discuss all production matters which affect them. If the training staff or the cost department, for example, have some innovation which the head executives have agreed to, this should be presented to the foremen at one of these meetings. *This presentation should usually be preceded by individual conference with all the foremen in their own departments. There is no substitute for the individual contact of expert with foremen,* in the course of which the expert tries to "make himself solid with the foremen" and get his idea across. This personal educational work may seem to be prodigal of time where several scores of foremen are involved; but progress comes in the wise administration of a factory no faster than it comes in the mind of every individual executive. A company is building from the ground up and for all time only as it carries conviction with every foreman regarding changes that are made. Before all organized efforts, then, *come personal efforts;* and if it proves impossible to win assent to a new proposal from one or two particularly hard-headed foremen in private, it may then be useful for them in a meeting to see in what a minority they are.

The value of planting the seed of a new idea and waiting patiently for developments should be clearly seen. The expert who is content to till the soil and then let the earth, of itself and in its own good time, bring forth the fruit is the one who gets ahead fastest in the long run. There is a saying, which is valuable for the expert in his relations with foremen, to the effect that *a demand for the exercise of authority is a confession of weakness.* There is another saying already used in this volume, which is also suggestive for the foreman and expert in this connection: *The expert should be on tap, not on top.* Both epigrams stress a vital truth about the foreman's relation to the expert; namely, that *the expert cannot safely be allowed to put his ideas into practice until there is a considerable body of supporting opinion willing to experiment with those ideas and take the consequences whatever they may be.*

The foremen's council, then, provides the representative assembly with which the expert will deal when matters affecting all foremen come up. It provides also the place for adjustments between foreman and foreman on inter-departmental relations.

In the application of new policies to one special department, further conference with the particular foreman is urgently advisable. Where, for example, as a result of expert study, it is

decided that changes in a process are desirable, it will be important to have a regular conference of expert, foreman, and a representative of workers at the job in question, to go over the ground thoroughly and reach an agreement before changes are introduced.[1]

The Foreman's Records.—In meeting his responsibilities to the executive above him, the foreman can act competently only when he knows "where he is at"—that is, when he has adequate records. For example, he should be provided with records of amounts of product per department and per producing unit correlated with figures of department payroll, with comparative figures of unit costs, records of amounts of waste, seconds, rejects, etc., records of department labor turnover, of absence and lateness. Study of these records has of itself such great educational value that the management which fails to provide them is losing out not only in adequate control of immediate production, but in longtime training as well.

The Foremen and Personnel Policies.—It is important, also, for the foremen to have a hand in determining personnel policies. A widely used scheme of orgnization includes a personnel committee,[2] which has the work of deciding policies in this field, and on this committee should sit a representative from the foremen's council. This provides a proper liaison between personnel and process policies, and means that no innovation is contemplated in matters of human relations which the foremen have not heard of and considered.

This leaves to be considered the relation of the foreman to the workers as organized under some form of employee representation. There was at first a tendency in the shop committee movement to leave the foreman as rather a fifth wheel to the coach. Today, however, there is increasing agreement that the foremen, as a unit group in the government of industry, have interests which align them more usefully with the management than with the manual workers. The practical result of this conclusion is a belief that the place of foremen in employee representation plans should be as management representatives.

Enough has now been said to give a fairly specific picture of the foreman's actual duties. With his experts, he should plan schedule work with his subordinates; he should supervise its

[1] More extended discussion of this problem in relation to the conduct and use of job analysis will be found in Chap. XVIII.

[2] Discussed more fully in Chap. XXV.

execution, and study and act upon the records of the department's results. In and through it all, it must be remembered that he touches people at a thousand points. His job fundamentally is to bring people into a relationship and an attitude where an economical production of goods can take place. *His big problem is a psychological one.* He must be the kind of person who can deal successfully with people.

The Foremen's Pay.—A further aspect of the foremanship problem is that of pay. Increases in wage or piece rates of manual workers has in many cases resulted in the foreman's getting little, if any, more wages than those whom he superintends. This question is discussed more fully in Chap. XXIII. It is only important here to emphasize the point that, generally speaking, the foreman is an executive and a leader of men. The qualities entailed in his work are relatively scarce. The psychological importance of his status—both in his own eyes and in the eyes of his subordinates—should be clearly reenforced by the recognition which a marked pay differential brings. In short, the value of a distinctly higher salary rate for foremen than for the best of their workers seems beyond argument.

The Size of Departments.—The question is often asked: How many workers should a foreman have under him? No absolute answer to this question is possible. It depends on the arrangement of the work rooms, the nature of the process, the character and attitude of the workers. If a foreman has too many workers (*i.e.*, over ten or fifteen) he loses personal touch with them; if, on the other hand, he has too few workers he is in danger of giving the impression of watching over them too closely. Let the foreman beware of that; let him beware of "snooping around" his department! He is not a detective or a task master, but an executive, an inspirer, a leader. If his capacities of leadership are so inferior that he has to drive with verbal abuse or profanity, or be on hand every minute in order to have work go forward, a successor should be found for his place.

In general, therefore, a foreman should have as many men as he can know personally, provided he can at the same time give the requisite supervision, advice, and suggestion about production methods, answer the questions which constantly arise, deliver the expected amount of good-quality output, and have some time to devote to improving his department's efficiency. This would seem to argue in many cases for increasing the supervisory staff

to a point where there is one foreman for twenty-five to forty workers. In some companies the productive efficiency of the individual departments has proved to be in almost direct relation to the increase in the supervisory staff. This result is achieved not by close supervision of an objectionable sort, but by assistance, intensive training, and better coordination.

Functional Foremanship.—We come, finally, to consider the problem of foremanship where functionalization has proceeded to the limit. There are a few examples of plants where a department instead of having one foreman has three—a mechanical foreman to keep the machinery in good working order; a process foreman to direct the technical work of manufacture; and a personnel foreman to start the employee at work, train him, adjust grievances, etc. These three foremen have to work, of course, in closest cooperation; and if any fundamental disagreement arises on some matter that affects all three at once, it is referred to the staff executives over them; for each functional foreman is responsible to his respective staff executive, chief engineer, technical manager, or personnel manager, as the case may be. It is for these three ultimately to confer and agree before policies or decisions are put into effect.

In this type of organization all the foremen are still dealing with people, still under the necessity of bringing people into relationships and attitudes which are productive. The need for them to have effective personalities is as great as ever. Their knowledge, however, does not have to be quite so generalized—or at least so thorough in every field—as it does in the case of the single foreman. Their duties are, of course, restricted and specialized. Yet, on the whole, the problem remains the same—to get people in every executive position who can competently act as the spokesmen of the management.

There is a significance in this experiment in extreme functionalization which should not be overlooked, even though it may be too early to say how successful it is and how adapted to widespread use. It looks in the direction of *decentralizing staff work;* it looks in the direction of getting the experts into closer, more organic touch with the actual work of production. It takes the coordination of staff departments in a living way into every room and into every situation in the factory. This, of course, must be achieved, one way or another, under any plan of departmental organization. However it is accomplished—and there is no

room for dogmatism in discussing the methods—it is essential that the different points of view of the plant, process, and personnel experts be reconciled and, so far as possible, harmonized at every point, if the work of production is to proceed smoothly. It is at the point where the foreman is at work that this accommodation presents its greatest difficulty.

Results of Foremen's Training.—Foremanship has here been spoken of as a "problem," the reason being that to fit the job and the man so as to assure successful accomplishment has proved one of the big difficulties in present-day organizations. It is, therefore, gratifying to find that the results of conscious efforts at foreman education have been so encouraging.

One experience is reflected in the following quotation:

> Eighty-five per cent of all the forty-six hundred enrolled executives and foremen completed the course, and the average mark for problem work was 72 per cent. In nine plants 100 per cent of the members graduated. The various plant groups voluntarily resolved themselves at the conclusion of the course into twenty-eight Continuation Study Clubs, and have been occupied for nearly two years with a course on Swift & Company, its history, organization, trade economics, and a complete study of all departments of the company—buying, purchasing, administration, processing, selling, and distribution. This course will occupy about three years.
>
> Another result of the educational program has been the possibility of giving the sixty thousand employees of Swift & Company better foremen, and already all employee issues are settled in nineteen of the largest plants through assemblies of elected employee representatives and appointed management representatives. This would not have been possible without first insuring that all Swift executives were competent and sympathetic exponents of the company's liberal labor policies.[1]

The author of this statement has further summarized experience with foreman training as follows:

> The superintendent of the California and Hawaiian Sugar Refining Company attributes this remarkable result in achieving a 40 per cent increase in output to foreman training, which not only enlightened the foremen in modern methods, but also stimulated them to an attitude of full cooperation with the management.

[1] CALDER, JOHN, "Experiences in Foremen Training," *Personnel Administration*, p. 10, June, 1922.

In one of Swift and Company's plants a foreman raised the output of his department from 400 to 700 units per man as a result of applying principles learned in his training class.

The production of the Granite City Rolling Mill, of the National Enameling and Stamping Company, increased 34 per cent following an extensive program of foreman training.

The superintendent of the Richards-Wilcox Manufacturing Company said that the personal training of his foreman in 1922 doubled production efficiency during the year.

The Vice-president of the Peerless Woolen Mills recently reported that the production of his plant for the current week was the largest in more than two years, and that they were turning out better work as well—a result which he credited to foreman training work.

An executive of the Staten Island Shipbuilding Company reported a 50 per cent reduction of labor turnover in the half-year following a three-month session of foreman training.[1]

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[1] "Foremanship," published by Department of Manufacture, Chamber of Commerce of the United States, Washington, D. C.

CHAPTER XIII

THE TRAINING OF EMPLOYEES

Productivity, in so far as it depends on human factors, depends upon the way in which human energy is applied and upon the will with which it is applied. The way it is best applied is considered in this discussion of training. The will with which it is applied is discussed in the chapter on how to arouse interest in work.

In large companies where securing a supply of technically trained employees was early recognized as a necessity, organized training work has been a fact for twenty years. With this exception the development of formal methods of job instruction has been surprisingly slow in getting under way. Employees have been left to pick up knowledge from assistant foremen and fellow workers as best they might; but the few companies which in recent years have segregated the training work under specially equipped executives have found that the length of time necessary for a worker to become proficient has been cut down remarkably. This has given a spur to training activities in many other companies.

It is a familiar fact that labor turnover is greatest in the first three months of employment. Experience with formal training methods has shown that this period of initial discouragement may be put to good use both by eliminating those who cannot become adapted to the work, and by cutting down the length of time taken to bring the rest of the candidates to full proficiency. The example of one silk manufacturing corporation which reduced this period from four months to eight weeks is an indication of the possibilities in this direction. Factory training work justifies itself in terms of increased amounts of finished work, less spoiled material, less wear and tear on machinery, and an increased sense of accomplishment and contentment on the part of new employees.

Progressive department stores have now introduced training divisions in which store systems and selling methods are taught; and the results have been the same—lessened selling costs and a

more proficient sales force. These, therefore, constitute the reasons why training procedure should be encouraged and developed.

Administration of Training.—The technical problem of supplying subject matter for instruction, of employing correct teaching methods, of directing the whole training program calls for a training division in the personnel department. Even where job instruction is decentralized into each manufacturing department, its general oversight should be in the hands of the training director. In a company of fewer than five hundred employees, where the training work may not be sufficient in amount to utilize the full time of such an expert, some one executive should be charged with this responsibility and enabled to familiarize himself with modern training methods.

Fields of Training Activities.—From the administrative point of view, three aspects of the training problem will require definite consideration. They are: (1) The type of education given in public schools before the employee arrives in industry; (2) the work of corporation instruction which in turn divides into job training and general instruction of a morale-building character; (3) the joint activities of corporations and public and private educational institutions.

Public Education.—Although attention in this study naturally centers upon the training within industry, it is important for the manager to understand the part that the school plays, or should be called upon to play, in the initial preparation of the young worker. For while there can be no absolute line of demarcation, it is increasingly recognized that the school has a primary and distinct function in relation to training. It must train for citizenship; it must give the background for a well-rounded, useful, enjoyable life. By what means? By general cultural courses, by trade training, or by some combination of both?

The best current attitude as to the respective functions of public school and of corporation instruction has been well stated in the following words of a group of employers in a Western city:

> Let us give the job instruction; schools must perform the more general service of training in right thinking and character building, and of giving the scientific and academic foundation for specialization.

This statement emphasizes in an adequate way the general cultural and non-technical aim which must be at the basis of

public education. This distinction cannot be too clearly held in view. For it has always to be remembered that life is more than livelihood, that education is more than industrial training, that education for life, liberty, and the pursuit of happiness is presumably an inalienable birthright of American children. To try to narrow the public educational scheme so that it merely passes on to industry a throng of submissive machine operators or clerks would result in a sorry caricature of education.

In the course of an education that really equips them to meet the problem of living in their generation there is every advantage, however, in children's receiving supplementary trade training. Significant experiments in this direction already exist, and they well illustrate the possibilities and the limits of public trade education. Under present school-age laws, trade and vocational schools usually take children from fourteen to sixteen years of age and give training for as much of the two years as the children may be held.

In fact, the whole movement for trade training in both the industrial and the agricultural fields has recently been greatly stimulated by the passage of the Smith-Hughes Act which has been the means of supplementing the resources of cities and states in supplying teachers and textbooks in the various vocational fields.[1]

Training in the Plant.—It is now generally recognized that it is the business of industry to give training in the specific content of the jobs for which it employs. Corporation training as at present conducted is developing along three related but distinct lines: individual job instruction; training for trade mastery and craftsmanship; general training to supplement the insufficient schooling of employees.

It is important in this connection that the management be clear as to the objectives of the training which it is beginning; for until any confusion on this score is eliminated, the curriculum to be offered and the type of teacher to be employed cannot be definitely decided. Some large companies have found that they can afford to carry on simultaneously training activities which satisfy all three of the objectives set forth above. Usually, however, in the smaller company, it will be better business to keep the three methods distinct, and as an immediate matter to

[1] See, in this connection, PAINE, ARTHUR F., "The Organization and Administration of Vocational Education."

give first attention to job instruction. It will be useful to discuss separately the instructional methods employed in factories and in stores.

Job Instruction in Factories.—There are two general types of instruction made use of in factories—central and local. The principle laid down in the following sentence seems to have been largely substantiated in practice:

> The former applies where there are large numbers of workers engaged in similar tasks; the latter applies to the great number of dissimilar tasks which are to be found in most departments.[1]

The so-called vestibule school or the corporation school is the name frequently given to training activities which are carried on under a centralized plan. The objectives of such a school differ in no way from those in decentralized training, unless an effort is made to give instruction in several jobs and in the elements of some specific craft knowledge. Therefore, without trying further to pronounce as to when central, as compared with local, training methods should be set up, it is possible to offer a few general observations on methods of training procedure which should be helpful in either case.

Methods of Training Procedure.—There should, for all training work, be special instructors specially trained; but whether they should be workers, picked because of trade skill, or be trained teachers who learn the jobs, it is impossible to say definitely. Both methods are in successful use, but especially in centralized teaching there is an increasing tendency toward the use of trained teachers either to do all the instruction or to lay it out in the best way for quick teaching purposes.

In any case the training should be carefully thought out from the teaching standpoint. The instructor must realize that there is a difference between true training and telling, showing, or drilling. All three of these substitutes are in use today and all three of them ignore fundamental psychological principles. The good teacher will realize that the most understanding and facility comes as a result of actual motor experience. Each individual must do his own learning, which requires inevitably that he go through the experiences necessary to acquire proficiency at the work in hand. The educator who insisted upon the paradox that "no one ever told anybody anything" was supplying a necessary educational emphasis.

[1] Link, Henry C., "Education and Industry," p. 140.

This does not of course mean unguided and discouraging trial-and-error efforts at new jobs. The sequential order of an operation is not necessarily the best order in which to learn it. The teacher must reduce the job to its elements and start the learner on its simplest parts or on the parts the new worker finds most interesting, and build up from this point to the more complicated parts of the whole. This implies that the training must be individualized as far as possible. One instructor to every eight or ten workers is the maximum which will give the best results for most kinds of training.

Workers in training so far as possible should work on materials that are going into the actual production. This holds them up to a quality standard from the start, and increases their interest in what they are doing.

There should be a maximum time limit in which the training must be finished. If after that time the employee does not produce what the average new worker is expected to, his case should receive individual attention from the training director to see if transfer to some other position is desirable.

Learners, of course, should be paid while learning; and they must be paid enough to induce them to stay through the discouraging learning period. Many firms make the mistake of giving such nominal wages during the weeks of training that the turnover in this period is excessive. Training is at best a speculative investment for a firm; but the risks of losing the trained worker are reduced if the importance of the investment is seen sufficiently to pay the price at the initial stages.

Wherever practical, learners should be taught several operations either at the start or during the first few months of employment. In this way, transfer during slack times may be facilitated. Ordinarily, if at the outset the idea can be established in the worker's mind that versatility will pay both him and the company, far less difficulty will be met at a later date in attempting to transfer him.

Instructors should be allowed to follow up workers for the first few days after they have gone into the production departments; in this way they are assured a more completely satisfactory start.

Apprenticeship Training.—Under the legislation above referred to, apprenticeship training may be a matter of cooperative effort as between the state or city and the corporation. Or it may be

an exclusively corporation project. Only large corporations can afford to embark independently on this type of training. Yet, even so, there are indications of a revival of apprenticeship because of the importance, at least for certain key positions in certain industries, of having thoroughly trained craftsmen. In 1924 the American Management Association found twenty of its members to be conducting full-time apprentice schools covering such trades as electrical work, foundry work, pattern making, printing, tool making, etc.

An electrical company, for example, which manufactures widely varied products, offers in its apprentice school two "pre-production" training courses on designing and making tools, and three training-on-the-job courses for supplying skilled millwright, sheet metal and electrical workers for plant maintenance. Apprentices are indentured from 3 to 4 years under the pre-production training plan, and 4 years under the training-on-the-job plan. Courses under both plans require 2400 supervised hours of actual shop work each per year, and all apprentices are under supervision by the central training division. Pre-production training, consisting from the start of simple shop work on commercial products, is given principally in the separate apprentice training shop; only one-third of shop assignments being spent in the works' toolroom under supervision by the shop foreman. Apprentices under the training-on-the-job plan work under actual factory conditions and in all parts of the factory, because construction job work cannot be segregated into a special training shop. The central training division selects and outlines the shop assignment, on which the apprentice works alongside a journeyman and under the supervision of the shop foreman. Under both plans classroom instruction on related trade subjects is given in the apprentice school and covers from three to ten hours per week. At completion of the contract under either plan, the apprentice receives a bonus and is graded and rerated according to his ability as a journeyman.

The National Metal Trades Association has made available a model apprenticeship scheme for use by its members.

Thus far, approximately five-hundred member firms have organized training schemes along these general lines, and the number is constantly growing.[1]

[1] Sells, Dorothy, "Apprenticeship, Its Status and Its Possibilities," in *Industrial Management*, May, 1926.

In a large number of works (in the United States), schools have been provided for the education of apprentices, and in many cases training workshops have been added, although opinion is divided as to the merits of the ordinary works or the special shop in training apprentices. Such schools have been established at the Pennsylvania, Santa Fé, and other large railway companies, the Westinghouse Electric and Manufacturing Company, the General Electric, Yale and Towne, Browne and Sharpe, International Harvester, Packard, Cadillac, and other large works. Instruction is given in a class room for a few hours each week, and practical training is arranged under the supervision of an instructor or foreman. In those cases where a special training shop is provided, an apprentice often spends six months in this and then six months in the main shop, where his new knowledge is applied under commercial conditions; he subsequently returns to the apprentice shop, and learns another process or tool operation, and so on to the end of his apprenticeship. In the General Electric Company, the whole period of apprenticeship is spent in the classroom or training shop, and in the latter he is judged to have attained sufficient proficiency to proceed to new work if he can teach the boy who follows him the process to be mastered. A four-year apprenticeship is becoming common in the United States.

Today no contract at all is preferable to the legal indenture in many industries.

A verbal agreement between an employer and a youth that the latter shall come to the works and learn a trade while in receipt of a definite wage is beneficial in stimulating an apprentice continually to satisfy an employer by good work, which is obviously good for the apprentice himself, since if he is unsatisfactory he can be discharged. On the other hand, an employer will always endeavour to keep a good apprentice, and will invariably afford him facilities for obtaining a good trade knowledge since he has the option of leaving at any time if conditions become less tolerable than those obtaining elsewhere.[1]

The writers of the above paragraphs recognize, however, a number of difficulties in this new development of apprenticeship. They find that the courses are not sufficiently organized; that there is need of standards as to what constitutes a skilled worker; that boys may often be in danger of being exploited at repetitious work; that more boys are required for actual production purposes than are provided with training opportunities; and that determination of the relative jurisdiction of educators and foremen is difficult.

[1] Fleming, A. P. M., and Pearce, J. G., "The Principles of Apprentice Training," pp. 102, 118–119.

Another writer offers the helpful suggestion that any firm employing skilled mechanics that can absorb ten new employees a year in its organization should have a factory school.

> Shops that cannot absorb more than ten new men a year either would have to train their apprentices in the shop itself—perhaps under the supervision of some workman who is given some time and credit for this supervision—or through a cooperative school organized by several smaller shops. The disadvantage of the cooperative school is the fact that the boy is not constantly under the control of the factory discipline, with the attendant results of less enthusiasm and less loyalty.[1]

The companies which have worked along the lines of apprenticeship training seem increasingly satisfied, however, with the results. The claim seems to be substantiated that as many qualified candidates as desired may be secured, that a good proportion of them remain for the entire period of training, and that the loss after the period of training is over is not larger than would reasonably be expected among young men of this age.

> The experience of the Westinghouse Electrical Company indicates that at least 40 per cent of its graduated apprentices eventually become members of the company's supervising force, and the labor turnover for graduated apprentices during the year of 1924 was only 3 per cent.[2]

An increasing number of examples might also be cited of communities where a number of local plants have cooperated in instituting an apprenticeship plan, thus enabling one set of well-qualified instructors to make their services available to a number of small companies at the same time. In the building trades especially this form of effort has proved highly satisfactory in stimulating the enrollment of apprentices.

Department Store Training.—In the larger stores, the organization of separate training departments has proceeded at a rapid rate in recent years. In such training, a good deal of attention has naturally been given to the instruction of the sales force, although all clerical and many other non-selling employees are also put through a formal course. The subject matter of the sales force training is in the first instance usually the system used by the company for the handling of sales, cash, credits, etc. This is

[1] GARVEY, J. J., "Modern Apprenticeship," N. A. C. S., Sixth Annual *Report*, pp. 351–361, July, 1918.

[2] SELLS, *op. cit.*

followed in the better plans by instruction in selling in which the student is given opportunity to sell before the class and have her work criticised. This instruction usually occupies an hour each morning through the first two or three weeks of the new employee's stay. It is then supplemented by the work of the head of the department, usually the buyer or his assistant, in checking up on the girl's selling methods and training in keeping and securing stock. In smaller stores, the entire training responsibility is usually put upon each department head, usually with much less satisfactory results. So satisfactory a technique has now been built up as to the proper selling approach and methods to be employed by the sales force, that any store which fails to put these methods at the disposal of its employees is unquestionably losing many sales.

General Training Plans.—The objectives which are usually set forth to justify more general training than job instruction or apprenticeship are to discover individuals with capacity for advancement, to supply the training to enable such promotion to take place, to stimulate interest in the work of the corporation as a whole, to supplement deficiencies in the employee's earlier education which in so many cases has stopped even before the grammar school was finished.

It has been truly remarkable to see the lengths to which many companies have recently felt that they can wisely go in supplying such general instruction. The Goodyear Tire & Rubber Company has its Goodyear University in which courses of this character as well as courses for executives, a continuation school, and a machinist's apprentice school are included. Early in 1926 the total enrollment in all branches of this school was over 700, and the average attendance was over 90 per cent.

Any number of companies encourage their employees to take work in local trade schools or else themselves supply instruction in subjects related to production, as well as physics, chemistry, applied electricity, shop mathematics, draftsmanship, etc. Department stores offer courses on the nature of their merchandise, on textiles, English, etc.

In fact, it may be said that most of the stores and manufacturing companies which run central training departments find that it is good business to offer evening courses in subjects more or less related to the work of production as well as in all sorts of independent fields where employees manifest an interest in classes

such as English literature, letter writing, psychology, dressmaking, etc.

Cooperative Training Projects.—Cooperative training projects divide themselves in general into two types of training activity of which the first is the now familiar continuation school, and the second is any one of a variety of projects which foster trade skill and are therefore subsidized under the Smith-Hughes law. Corporations which have employees from fourteen to sixteen years of age and operate in states where continuation school laws are in force, have the responsibility not merely of seeing to it that these employees attend the school, but of guiding their study so far as possible into lines of activity that will contribute to making the employees more effective workers and logical candidates for promotion either within or outside the company. With the tendency to put young people of this age at jobs which are essentially "blind alley" in character, it is all the more important that the continuation school part of their experience should contribute to increasing their capacity in earning power. Remarkable results along these lines have been obtained in some of the banks and among the messengers of the New York Stock Exchange.

The joint arrangements for industrial education made possible under the Smith-Hughes law are sufficiently flexible to be adapted to the needs of all communities and companies which are willing to go half way in assuring that the conditions of the law are complied with.[1]

The encouraging development in trade training in the buliding trades in New York City, which graduated over seven hundred apprentices in half a dozen crafts in the spring of 1926, is a good example of the benefits accruing from the use of this kind of cooperative support.

The apprentice training courses organized under the general direction of the United Typothetae of America have done much to supply the printing industry with thoroughly trained apprentices.

The elaborate cooperative training plan used in Milwaukee has been remarkably successful in securing trained workers in a great variety of crafts.

Since, under the terms of the law, resources will be forthcoming when a well-conceived plan has been put into operation, considerable responsibility rests upon employers to try to make

[1] See PAYNE, ARTHUR F., "The Organization and Administration of Vocational Education," p. 59.

provision for training plans which can secure support from the government.

In addition to this type of cooperative arrangement, there are a great many special arrangements like the instruction carried on by the Boston University for the Boston Gas Company, and the work carried on by the American Institute of Bankers for bank employees.

The Cost of Employee Training.—The initial cost of training work is undoubtedly high, but the net expense, as compared with that when employees simply pick up what they know, is considerably less in most cases. For many companies job instruction and apprenticeship training have proved to pay in a better quality of work, in more economical use of material, power, and machinery, and in the more rapid attainment of a normal rate of production. Where, as is frequently the case, the learning time is cut down by a third or a half, it is easy to see the economy to be effected on this one item alone.

A factory or a store with approximately five hundred employees and the normal rate of labor turnover will probably find that it can economically make use of one executive for training work whose salary might be from $4000 to $5000. In organizations of this size, the cost of separate space and of machinery set apart for training purposes usually may be small. However, much depends upon the elaborateness of the training policy embarked upon. It is when the central training plan has to be employed that the required outlay becomes more substantial.

All this means that for the great majority of companies it would be a real benefit if some form of cooperative training could be used. This is in a measure achieved under the cooperative training plans described above, yet even these do not supply job instruction sufficiently definite to meet the need satisfactorily. What is rather called for is the employment by several plants of one well-paid educational director who can organize the teaching work, train instructors, and supervise the educational programs of these plants simultaneously. In this way, the best type of job instruction may be obtained for each plant at a reasonable expense.

Other Instructional Methods.—In addition to all the classroom programs which may be organized, there are many educational measures which have proved beneficial, especially when looked at from the point of view of developing a more intelligent

personnel, company morale and a sense of corporate unity. These include special lectures, the publication of a company paper, the development of a company library, the carrying on of Americanization and naturalization work where this is needed, the use of regularly organized trips through the plant, and the use of suggestion systems.

Lectures.—Lectures have distinct limitations from a training standpoint; but if care is taken in the choice of lecturer, of his method of presentation of the subject selected and the follow-up of his talk, beneficial results may be obtained. An increasing number of large companies now provide halls in which a majority of the employees may assemble for talks by buyers on sources of raw materials, by salesmen on the uses to which the goods are being put, by experts on technical processes, by executives on organization policies and methods, and by customers on the uses to which they put the product. In all of these cases, the use of motion pictures or lantern slides should be encouraged; in fact, every possible method of visualizing material at such lectures by the use of a blackboard, a printed syllabus, etc. should be utilized.

The Company Magazine.—The company magazine has been found by many companies to be a valuable part of the employee training program. This applies, of course, only to the so-called internal house organ and not to the paper designed for use with the company's customers. The educational purpose can be served, however, only by making the magazine as a whole sufficiently readable to be popular among the employees. The formal articles interpreting company policy, recording shop committee meetings, discussing the uses of the company's product, naming awards for new suggestions, etc. may be introduced there in such a way as to assure a reading.

This means that the success of the magazine depends on a definite editorial policy and an able editor who can secure the full support of both the management and the workers.

A good deal of study has been devoted to the technique of employee magazines, and it would be unwise for any company to embark on this experiment without familiarizing themselves with recent experience.[1] Although there is by no means unanim-

[1] See, for example, "Employees' Magazines in the United States," published by National Industrial Conference Board; "Employees' Magazines," *Report* 74, Policy Holders, Service Bureau, Metropolitan Life Insurance Company; O'Shea, P. F., "Employee House Organs."

ity on the question of the amount of expense to which a company may wisely go, there is a growing feeling that the company magazine should be given to each employee and probably should be sent directly to his home address. This seems to assure the maximum likelihood that the magazine will be read and has the additional advantage of acquainting the worker's family with working conditions and problems at the store, office, or factory. The policy is a good one which encourages the use of photographs of different parts of the plant and of the product in order that employees and their families may have some pictorial record regarding the work they do.

There seems to be no adequate substitute for a company magazine as an element in morale building, always assuming that the paper secures such reception as to make it widely read.

Educational Trips.—Several plants find that the inspection trip within the factory, to other shops, and to museums is an important method of training. It gives that broad view of the business as a whole which is extremely necessary. One company trained twenty-five of its men from the executive departments as guides and with their aid routed the entire working force of thirty-five hundred employees through the plant. The groups were small, and were each guided for three hours. It took two months to give all the employees a personally conducted tour, but when the work was completed it had proved so stimulating that the company decided to extend the privilege to the families and friends of the workers. About twenty-five thousand people were accordingly taken through, and the intelligent interest that was aroused by the whole affair more than justified the trouble. Curiously enough, instead of retarding the processes of production, the output was stimulated to 5 per cent above normal during the period when the trips were being made.

Suggestion Systems.—Suggestion systems may be conducted in such a way as to have a considerable educational value. This may only be secured, however, if someone in the personnel department is definitely charged with the responsibility of keeping interest alive and of seeing to it that the whole system is administered in a businesslike way. Further details about the operation of such systems are discussed in Chap. XIV, in connection with the methods of securing interest in work.

Americanization.—Companies employing workers who speak little English and who have not become citizens have a special

responsibility, and there is today a definite and a well-established procedure for taking care of workers needing this training. Although frequently undertaken as a company responsibility, this instruction is really a public function and increasingly it is being conducted cooperatively by companies and public schools.

The Massachusetts Board of Education, for instance, suggests several feasible plans in which school and industry may combine in Americanizing foreign workers. These include a plan to conduct the school on company time at the factory with public school teachers; another to hold school outside the works partly or wholly on factory time, with public school teachers; and still others to establish a school within the works on company time, taught by factory employees or volunteer teachers; to conduct a school outside the works partly or wholly on company time, with factory employees or outside teachers; and finally to have school outside the works on employee time, taught by approved instructors and all expenses paid by other agencies.

The Chicago Association of Commerce and the Chicago Board of Education jointly provide for sixty day classes in thirty-two industrial plants with enrollment of over sixty-six hundred employees.

Experience seems to show that the best results in this direction are obtained in schools where the work is done in the day time, often half on company time, and half on employee time, at the end of the day. It is essential to have small classes of one sex, and desirable that the teacher know the native language of the group being taught. Classes should meet at least three times a week and preferably every day. It is further important to try to organize the classes so that students with the same degree of previous schooling study together. Needless to say, this work is of great value from the point of view of sound personnel relations, since without ready means of oral and written communication, direct contact between employee and management cannot be secured.

Conclusion.—The possibilities of cooperative effort of the community and industry are just beginning to be realized, and only a suggestion may be given here of the amount and high quality of industrial educational work now being done throughout the country. Unquestionably, much can be done here which will benefit the individuals personally and benefit industrial life in general, but these results can only be secured if the control of

the selection of courses and of their content is in the hands of a public-spirited group which is representative of the points of view of the different interests affected; namely, the employers, the organized workers, and the educators.

The motive of training underlies all good personnel work, and the personnel workers who see their whole task as one of training of executives no less than manual workers should realize that the formal training methods are only a part of their educational responsibility. Nevertheless, the pedagogically sound conduct of these various training activities may do much to build company morale and to make it possible to carry forward the entire personnel program much more rapidly than would otherwise be the case. It is conspicuously true that all companies in which the best personnel work is done make liberal appropriations for training work, and carry forward a program which includes practically all the items above discussed.

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CHAPTER XIV

AROUSING INTEREST IN WORK

Much has been written recently about the monotonous character of present-day industrial work on the one hand and about the workmanly, manipulative, constructive, creative tendencies on the other; of which, it is claimed, little use is made or can be made in the average factory. Industry is under indictment on the serious count of failing to provide any reasonable outlet for certain fundamentally necessary and useful characteristics of the human organism. It is accused of cramping and stultifying the individual; of making it impossible for him to find interest and fulfillment of life in work.

Certainly no more serious situation could be conceived than one in which millions of people are destined to be confined daily for eight or nine hours to labors which are indifferently or grudgingly performed. It is hardly an exaggeration to say that the permanence, productivity, and humanity of any industrial system stands or falls in the last analysis upon its ability to utilize the positive and constructive impulses of all who work, upon its ability to arouse and continue interest in the necessary activities. The problem, therefore, demands searching study if we are to answer such inevitable questions as: Is interest in work as now carried on possible? If it is, how is it to be aroused? If it is not, can industrial methods be so modified that interest will arise? The fact that much of the current discussion has bordered on the sentimental need not be a deterrent if the problem is analyzed in the light of a sound definition of interest and monotony.

Interest Defined.—Interest is essentially an attitude of continuing attentiveness, found where activity is satisfactorily self-expressive, where the individual has the sense of effectively "getting himself over." People are interested when attention has passed the point of conscious effort and is eager, sustained, and self-renewing. Manifestly, such a sense can come through as many channels as there are modes of self-expressive behavior. Individuals normally seek outlet for a variety of fundamental

tendencies. There is pride of family—desire that the family "get on in the world," pride in work well done; desire for the approval of one's associates; desire to excel in whatever field of activity excellence will give self and group approval; desire to satisfy one's possessive feelings and one's curiosity. A longer list might be made, but this will suggest the variety of desires which are naturally self-expressive and therefore self-satisfying.

An individual is interested, in other words, when an activity keeps holding his attention because it has the appeal and challenge of its own difficulty, or because the performance is giving enjoyment due to the fact that the activity is natural and the sense of accomplishment pleasurable, or because the approval of one's associates is anticipated, or there is the appeal which some other imputed significance in the activity brings. We are interested and pay attention when we recognize, as Professor Dewey puts it, that there is something at stake, "something whose outcome is important for the individual." When the individual can register in an activity so that his sense of his own personal "worthwhileness" is satisfied, then there is interest.

The elements in this condition of interest are, therefore, four: self-choice of the activity, pleasure in it for its own sake, a sense of significance or value in its performance, and the assurance of friendly approval when the activity is over.

Monotony arises when these elements are absent. Without freedom of choice, without a sense of significance or the assurance of approval, work becomes drudgery. When the activity becomes so habitual that its performance requires no conscious attention—is automatic or reflexive—there is no opportunity for self-expression in the work, and monotony is inevitable. "Monotony means that growth, development, have ceased."[1] Thus it is not necessarily the repetitive character of the job which determines whether or not monotony exists, although clearly, the chance for a personal outlet is least there. Monotony is present whenever the work is so circumscribed that the chance for self-expression or development is denied.

Interest and monotony are, therefore, not so much characteristics of work as of a relationship between a worker and a job. In each individual case the two must fit; the worker must find the job which satisfies him. The decision is one always reached

[1] Dewey, John, "Interest and Effort in Education," p. 16. This whole discussion is largely suggested by Professor Dewey's approach.

in the light of the individual's prior training, capacity, and aspirations. The situation is essentially dynamic. One is either progressively more interested or less interested, and the latter condition usually means less capable of being interested.

Which of these directions the attention will take depends on two things: on the individual's knowledge, ability, and temperament; and on the intellectual content of the job. About this second, people are likely to over-generalize. It is easy for the casual observer to stigmatize all factory work as monotonous; but increasingly as engineers try to put on paper the content and variable elements of which the operator should have command, they find that many jobs which are supposed to be without opportunity for individual judgment really require genuine interest in order to be well done.

A college graduate who spent a summer in the steel mills around Pittsburgh asked the foreman what his work as "second helper" was to be. The foreman replied with characteristic brevity: "You just stand around and help me." The man did as he was told for two weeks, after which he spent an evening covering ten pages with typewritten matter about the content and responsibilities of the second helper's job. If he and all others newly hired for the job could have had the work they were to do, described to them in some more organized and rapid way than by being told it was "standing around" to help, their interest would have been stirred and the sense of workmanship appealed to. Many jobs usually thought of as monotonous require thought, care, and attention, and could therefore be much more interesting than they are, if only the worker had the knowledge and background out of which interest might normally arise.[1]

[1] An interesting illustration of this is given by SELDEN, F. H., "Have We a Just Standard of Industrial Intelligence?" In *American Journal of Sociology*, vol. 24, p. 646, May, 1919. "Usually, only cheap help was employed at this machine, as the foreman prided himself on getting work out at a minimum of expense. The regular hand quit and it was necessary to put another man in his place. The new operator looked the machine over, fixed it up, and decided to run it on a faster speed. To do this he must watch it very closely . . . This necessitated his keeping his ear close to the cutter. Being a tall person, this could be accomplished without undue fatigue only by sitting down. He got a nail keg and sat close to the machine, but as his ear was directed toward the cutter his eyes were apparently looking about the room. Only a day or so elapsed before the foreman called him down for his lazy tendencies in sitting at his work. This, of course, resulted in his putting his machine back on slow speed and assuming an attentive attitude."

Study of the intellectual content of jobs will disclose how many jobs of each different kind there are in a factory. It is inaccurate to speak of all factory work as repetitive drudgery. The work of machine maintenance occupies some workers. The handling of materials and trucking occupies others. There are assembling, inspection, packing, shipping. The actual proportion of unskilled machine feeders varies from plant to plant from around 35 to about 80 per cent[1]. The elements of insecurity in the job, non-control over work, little significance in the work, little chance for fellow workers' approval, however, may be present at non-repetitive jobs just as much as at repetitive ones; and monotony exists wherever the chance to make the job self-realizing is no longer present.

The Worker's Attitude Toward Interest.—If there are a variety of jobs and variety of talents, why is there so little interest? Most managers seem to believe there are three possible answers. Workers do not want to be interested, or they like monotonous work, or they are incapable of being interested. So frequently are these three statements advanced that it is worth while to examine them.

If taken literally, all could be translated into these terms: the manual worker—unlike everyone else—prefers activity which is non-self-expressive. Having no strong predilections, he is satisfied with an emotional and intellectual experience which is dull, stale, and impoverished. Thus stated, this conclusion reduces itself to absurdity; but if we view these objections more understandingly, we find that they are intended rather to suggest a condition of *unresponsiveness*. Anyone who is familiar with working-class conduct in the factory cannot fail to have been impressed with such a condition.

It is of little use to consider remedies for any situation until causes are understood. If managers would really grasp the reasons for this condition of apathy, they would be better equipped to discover and work patiently with the remedies.

Reasons for Unresponsiveness.—There are at least two outstanding explanations of this unresponsive attitude toward work. They are *fear* and a *passivity* of mind for which childhood experiences help to account.

The rôle of fear in working-class life is a critical one; and the fear does not have to be conscious for it to have its effect. The

[1] See Florence, P. Sargent, "The Economics of Fatigue and Unrest."

consequence of fear is a state of body and mind which is strained, preoccupied, and obstructed. The person who fears may have his attention rivetted on escaping the thing feared; all his alertness and responsiveness are naturally enlisted in this escape. Literally he can be interested in little else. Under certain conditions this emotion might be a stimulant, but let the fear work continuously upon the organism, and the effect is definitely repressive. Repression, someone has well said, often expresses itself very strikingly in the decrease of such emotions as have been present, and the non-appearance of expected new emotions.

In the aggregate, the fears of working-class life may become formidable. There impends the fear of unemployment due to lay-off or arbitrary discharge, fear of the foreman's reprimand or "bawling out," fear of the possible discrepancy between income and expense, which means debts and anxiety, fear that trade skill will lose its value because of the substitution of machinery or other changes in process and technique, and fear that if one works fast and hard rates of pay will be lowered or the order will be filled and no more work be forthcoming.

Nor are the effects of these fears to be estimated in proportion to their conscious influence. They work in part unconsciously; and so nicely is the human emotional mechanism balanced that it is the intensity rather than the duration of the experience which determines its power over the individual. One short experience of unemployment with its attendant anxieties—even though the worker knows he is efficient and is usually regularly employed—may give rise to a "no-job" fear, which works on irrationally and unconsciously for several years, despite a present condition of prosperity.

In addition to the unconscious influences of fear are the unconscious effects of a restricted childhood. The psychoanalysts have properly called fresh attention to the importance of mental environment and maladjustments of the first five years of life. "Infantile fixations" are frequently found to be the cause of peculiarities which crop out in later years. Because there is no proper adjustment of the child to his environment at the time, a repression takes place which, if it is severe enough, may work itself out into "queer" conduct in adult life.

The repressive character of the infant environment of many workers probably supplies at least a partial explanation of a certain passive quality in their later life. For, as Pfister says as

a result of his clinical experience, the greater the repression and the longer the individual is subject to it, the more difficult it becomes for his emotional life to respond in a natural way.

Three groups, each with a handicapped childhood environment, are distinguishable in this country. There is one group, numbering upwards of ten millions, whose childhood was spent in the countries of eastern and southeastern Europe. They come from an agricultural civilization; they themselves are largely peasants, in some cases not more than two generations from serfdom. They grew up under an autocratic church and state, where educational influences were at a minimum. It is to the credit of their vitality and stamina that they "broke through" and emigrated; but admire as one must the courage thus shown, one should realize that they cannot in their generation make up for the restrictions and limitations imposed by their own childhood.

The children who grow up in the congested slums of America's large cities have also been subjected to the repression of normal impulses. Miss Addams pointed out several years ago, in discussing "The Spirit of Youth and the City Streets," that the natural desires of children may be badly warped by tenement life. Their experience with sex, for example, begins unwholesomely early because of their inevitable familiarity with it when an entire family occupies one or two rooms. A whole side of life which needs no artificial stimulation is likely to be early awakened, and if in addition to the psychological handicaps there has been actual underfeeding, the city worker's child may grow up without the physical, emotional, and intellectual equipment which he needs to make him wholesome, responsible, and happy.

A third group which suffers the disadvantages of a circumscribed infancy has been growing up in isolated company-owned towns, where many of the undesirable characteristics of the city slum obtain without the stimulus and excitement of the city atmosphere. Our country has hundreds of desolate one-plant textile and mining towns to which Mill's description admirably applies:

> Neither the thing done nor the process of doing it introduces the mind to thoughts or feelings extending beyond the individual; if instructive books were within their reach, there is no stimulus to read them; and in most cases, the individual has no access to any person of cultivation much superior to his own.

The "come-back" of human nature from under the most trying conditions is astonishing; but managers' objection that people do

not want to be interested in work or that they like monotonous work is so frequently reiterated that they should understand that where this is the case workers are usually responding subnormally. People endowed with an average amount of emotional and intellectual energy do want to be interested in what they do; and the practical problem is to *release* this energy by discovering or creating in the work some appeal which will catch the attention and then hold it by the strength of the interest aroused.

The mental air must be cleared for thousands of individuals. Self-confidence and self-respect must be restored. Powers now latent and unimagined must be given expression. There is no one best way to do this. A fascinating study in group and individual psychology is before us; for different groups and different people will be stirred and moved to this release of creative power in different ways. There is, however, a technique of liberation. William James realized this when he asked: "To what do the better men owe their escape; and, in the fluctuations which all men feel in their own degree of energizing, to what are the improvements due, when they occur? In general terms, the answer is plain: Either some unusual stimulus fills them with *emotional excitement,* or some unusual *idea* of necessity induces them to make an extra effort of will. Excitements, ideas, and efforts, in a word, are what carry us over the dam."

If it is true that excitements, emotional appeals, and ideas—intellectual appeals—result in efforts which successfully bring a release of energy, the problem for industry is to find the excitements and ideas that will arouse interest.

One final caution must be stated before outlining a program for securing interest. The phrase "non-financial incentives" is often used to characterize these methods. If workers should get the feeling that this is all a scheme to get out more work without any commensurate return to them, the supposed benefits will not appear. It must be clear to all concerned that the procedure is not exploitive, that it does not ignore or repudiate the use of soundly conceived financial incentive plans, which may well accompany such methods as those about to be described. The arousing of interest properly conceived is not an effort to speed up workers, cut wage rates, or increase profits. It is an effort to round out the company's educational program by paying special attention to the problem of the workers' mental attitude while they are at work. A sound principle here, the implications of

which are developed in later chapters, is that *the successful application of methods of stimulating interest in work must be accompanied by methods of assuring to workers a genuine share in the control over process and over pay.* Any company which employs this principle in getting their employees interested in their jobs almost automatically frees itself from possible accusation of exploitation; and shows by its policy and actions that it realizes that its educational responsibility is great.

A distinction is to be observed here between an incentive and interest. The provision of incentives does not guarantee the appearance of interest. An incentive is a device presumably calculated to attract and hold attention by virtue of having appeal to some human characteristic—as the desire for gain, for approval, for competitive superiority, etc. The incentive may be either in a result expected in the future, or in the satisfaction yielded by the activity as it proceeds. But interest only comes, assuming an incentive has been applied, when the individual discovers that the operation of the incentive plus the work itself do together give rise to a sense of satisfactory achievement.

It is not assumed that all the methods discussed in the remainder of this chapter can or should necessarily be adopted by one organization; but together they do offer a program from which to select features for a campaign of securing interest, which is comprehensive and worth working on over a period of years.

Regular and Permanent Work.—The first plank in a platform of interest in work is regularity and permanence of employment. People cannot be expected to be interested in what they are doing if they are likely to be told on short notice that their services are no longer desired. It makes no difference how justified the cause of the lay-off may seem in the management's eyes, as, for example, when a heavy cancellation of orders occurs. To the worker the outstanding fact is that there is little relation between his fidelity and workmanship and the security of his job.

In the building and garment trades, to mention only two of the most conspicuously seasonal industries, individual efficiency is well known to have been adversely affected by the irregularity of work. "To make the job last" is the worker's natural retaliation against a society which tells him to walk the streets when the job is over.

The methods now in successful use to regularize work are discussed in Chap. XXVI; and the evidence is conclusive that

most corporations can do much to flatten out the curve of annual employment. Failing this, or supplementing this, is the increasing provision which is being made by companies to compensate workers with a portion of their wages during weeks of enforced idleness.

More Careful Selection.—If interest is a matter of adaptation of person to position, the process of selection takes on new importance. Much is being done today with selective tests, but it is only a beginning toward helping to guide people into work they will find congenial. The first step is, of course, to functionalize the work of guidance and selection so that experts with wide experience may be utilized. But if attention regarding selection is confined only to entrance into a company, the process will only be half efficient; for this relationship of person to position is a dynamic one, and as people grow and change, readjustments must be made.

Job Instruction.—There is today so much indifferent workmanship that executives are likely to forget that proficiency at congenial work is itself pleasurable. What people can do well they usually like to do, or at least they prefer it to something which they do poorly. Yet a company fails to capitalize this truth if it provides no definite training. The case for job instruction needs no arguing here. If no instructors are set apart to teach the new employee the best and quickest ways to work, he may spoil the material or the machine, and acquire a distaste for the job—born of fear—which it is later extremely hard to overcome.

The significant training comes in acquainting the worker with the *knowledge of the process as a whole and of the use to which the product will be put.* That ideas serve as stimuli is too often ignored in industry. Managers forget that knowledge can help to give significance to action; they ignore the simple truth that in the long run people work better when they know what they are doing, why they are doing it, and how it is done. "If thou knowest what thou dost," said an ancient philosopher to a shoemaker at his work, "blessed (*i.e.*, happy) art thou; but if thou dost not, thou art condemned."

A variety of ways of giving this knowledge is being successfully used today. Some of these ways are: having classes of newcomers study models of the product in the several stages and shown through the factory; using popular textbooks on the history and practice of the industry and the plant; showing motion

pictures of the extraction of the raw material, work in process, or product in use; using the company house organ to explain in word and picture all about raw materials, processes and uses of products; using qualified employees as occasional factory guides for visitors; giving annual exhibitions of the company's output; popularizing the company's annual report; using the company library; sending the catalog of the plant's products to all employees; arranging trips to employees and their families through the factory, and visits to other factories, either in the same industry or where one's products are in use; transferring workers in "flying squadrons" to work in any department that is temporarily behind; returning defective or rejected goods to the workers who made them. The mere mention of many of these will suggest to the ingenious executive's mind many similar methods which might be used.

Ways and means will multiply with a moment's thought, as soon as managers see the desirability for acquainting every worker with the extraordinary romance and fascinating drama which the complex modern industrial world really offers. Every worker has a right to the sense that he is an understanding and necessary principal. The first condition of having that sense is an understanding of the significance of his own job.

The value of this understanding may be graphically illustrated by reference to the industries which make or operate transportation equipment. Suppose that whenever a train wreck traceable to a defective rail occurs that rail is returned to the mill where it was made; suppose also that motion pictures of the wreck showing how it happened and its consequences in human suffering are then shown in all the mills where rails are being manufactured. Can anyone deny that the steel workers would have a fuller appreciation of their responsibility, a greater pride in good work, a greater anxiety to see it well done? What is true of workers on steel rails is true of workers on automobile springs, locomotive boilers, car axles, and a thousand other articles.

Measuring Results.—People work to best advantage when they know "how they came out," as the phrase is in athletics. It is natural to want scores to measure one's achievements by; to have a "bogey" to work against, milestones to indicate progress. This is secured in industry by the use of various forms of published production record, which compare present results with past results and one's own with one's fellows' results.

Convincing evidence of the value of production records to create workers' interest in their jobs has been supplied by a successful production engineer, Robert B. Wolf. His results have been so widely discussed that it is unnecessary to do more than call attention to his experiences. His conclusions, drawn from the paper-making industry, are briefly as follows:

> These records we found to be grouped under three general classes: *quantity* records, *quality* records, and *economy* or *cost* records. Quality records are, perhaps, of the greatest importance for they bring the individual's intelligence to bear upon the problem and as a consequence, by removing the obstacles to uniformity of quality, remove at the same time the obstructions to increased output. The creative power of the human mind is, however, not content simply to produce the best quality under existing conditions of plant operation. So the desire to create new conditions for the more highly specialized working out of . . . the process . . . at once takes the form of suggestions for improvements in mechanical devices.
>
> Because of the interrelation of quality, quantity and economy records, any complete record of individual progress must, of course, take them all into account.[1]

Mr. Wolf's results would be significant by themselves, but there is an increasing body of testimony from other plants to confirm his conclusions. One plant displayed a large blackboard on the wall at the end of one department. The board was so ruled that every man's production could be recorded every hour. One hour the amount would be projected in white chalk, against each man's name, the next hour in red, etc. A normal day's output was formerly considered to be about 1400 units. At the end of the first day's use of the published production record, several workers produced over 2000 units and all went above 1800. Today between 1800 and 2100 units are considered a normal output. Such innovations are undoubtedly in danger of abuse. This illustration is given at its face value, and it would be necessary, before passing final judgment on its success, to know that the effect of the permanently increased speed of work on the workers was not adverse either in terms of health or of the continuity of their work.

[1] From "The Creative Workman," an address published by The Technical Association of the Pulp and Paper Industry, New York, 1918. Mr. Wolf's writings are listed at the end of this chapter.

An English accountant writing on the value of a knowledge by the workers of a department of the costs involved, cites the following experience:

At a certain factory the tool-room cost for each production unit of 1000 articles manufactured was 10s. ($2.43); at a corresponding factory the cost was 4s. 6d. ($1.10) per unit. In eight months after a costing system was introduced in the tool-room the cost per unit was reduced from 10s ($2.43) to 2s. 10d. ($0.69) per unit. Improvements effected by the introduction of this system were: (1) The firm reduced the tool cost by 72 per cent; (2) the tool-room operatives earned higher wages owing to the reduction in wasters and consequent increased production; (3) the foremen and charge hands received a bonus above their normal wages; (4) the works operatives were insured a regular supply of tools, thus facilitating production and avoiding the idle time which had previously occurred.[1]

A number of plants where the raw materials used are expensive (*e.g.*, hides, rubber, copper) testify that workers are much more careful of material *as soon as they appreciate its value.* One engineer tells of a gang of men soldering tin cans, who were using from 11 to 19 ounces of solder per 100 cans, where experiment showed that nearer 5½ ounces was the right amount. The men were consulted and it was arranged that they should share in the value of the solder saved.

Now these men are turning out more cans a day than they ever did before and average from 3 to 7 ounces of solder per 100 cans . . . The same plan has worked out with equal success in operations involving the use of sand paper, silk thread in a sewing room, ink in a printing shop, ribbon on hats, brass wire in electrical work and so on.[2]

A knowledge of equipment costs is equally important where expensive instruments and tools are used, the value of which is often not appreciated by workers. It is a good rule to be sure workers know exactly the market value of all instruments, tools, equipment, machines, and materials which they use.

Published records of quantity, quality, amounts of waste, unit costs, and perhaps of other factors are of great value; but care

[1] Jenkinson, Webster M., "The Workers' Interest in Costing," as reviewed in the U. S. Bureau of Labor Statistics, *Monthly Labor Review* vol. 8, pp. 1542–1543, May, 1919.

[2] Bassett, William R., "Developing Pride and Interest in the Job," in *Factory*, vol. 22, pp. 693–696, April, 1919.

must be taken that they are presented in the right way. They should be in as simple and intelligible forms as possible; if this is accomplished best by graphic charts, these should be used. The records should also be comparative with those of previous days, weeks, and months; and there should be an opportunity to compare results from one year to another.

Records of this type are different from a type of "efficiency record" which has been attempted in some plants. The efficiency record appears usually in terms of percentage—the per cent that each worker's output is of a given standard day's work. In one plant this standard was set so high that workers rarely got over 70 per cent "efficiency." When the workers discovered the reason for this, they lost interest in improving their rating, and the record was eventually discarded.

Indeed, if the record stirs up too great a spirit of competitive emulation or of hectic rivalry, it will be in danger of digging its own grave. Unless the workers themselves have the scheme in part under their own control and agree with the management as to reasonable production standards, including the guarantee that there will be no rate-cutting, any scheme of competitive production records will be of little value.[1]

Today the worker gains standing by the size of his pay check or by the character of his job but if the work and records of work are organized in the right way, he is found also to gain standing in his own and others' eyes in terms of the quantity and quality of the work he has done.

Recognition of Superior Personal Merit.—Organizing the approval of fellow-workers and even of consumers for excellence in work is a worth-while way of enhancing personal prestige and giving interest to the job. Anything that will allow workers to register in their own eyes at and through their jobs should be encouraged. Whiting Williams has shown that in the minds of workers in most companies each level of jobs carries its own special social and personal status for the incumbents; and every legitimate reenforcement of this recognition of relative status is probably contributory to the worker's sense of accomplishment and significance in his work.

The following methods are being employed to secure this organized approval for good work: The building trades in a number of cities are offering certificates of merit to craftsmen whose work on

[1] See Chaps. XVIII and XXIII.

individual buildings has been conspicuously thorough and excellent. The New York Building Congress "aims to recognize by a suitable ceremony and certificate the superior craftsmanship of one of the artisans in each of the major crafts engaged on a given building operation."

The Building Congress of Portland, Oregon, has a Guild of Building Handicrafts. This guild selects workmen of outstanding competence, and, after examination of their work by a jury of five, awards to them, if the jury reports favorably, the title of "Guildsman." So favorably has this movement impressed the Oregon State Board of Vocational Education that it has presented the guildsmen with gold buttons bearing the seal of Oregon and the legend, "Guild of Building Handicrafts." In receiving this button, at the recent formal installation ceremonies, one of the recipients made the very pertinent remark, "For 40 years I have been a mechanic and this is the first time I have been honored as such."[1]

The General Electric Company has also adopted a plan for recognizing distinguished service;[2] and the telephone companies have for some time made it a practice to feature in their house organs and annual reports the conspicuous examples of devotion to service of their employees under trying or crucial circumstances.

The picturing of individual employees in the advertising of companies is a plan which has benefits of this sort both direct and indirect. A fine example of this is in the advertising of the Gorham Silver Company.[3]

A comparable practice looking to a greater personalizing of the relationship between workers and the public with whom they come into contact is seen in the practice of public utilities such as bus lines and Pullman cars, and with elevators in buildings, of placing workers' names where the public can see them.

[1] From speech by MEHREN, E. J., Vice-president McGraw-Hill Company, Inc., before New York Building Congress, Nov. 12, 1924, *Building Congress News*, Dec. 1, 1924.

[2] These awards, comparable to honors conferred upon eminent engineers by electrical and other scientific societies, are believed to be the first ever given to shop workers in a large industry. The winners comprise ten shop men, sixteen engineers, ten foremen, six commercial men, five administrative employees, and one woman, a stenographer in the Pittsfield, Mass., works of the company. Those honored are persons who have performed some distinguished service to the company. *New York Evening Post*, Mar. 1, 1924.

[3] See also TOWNSEND, A. L., "Advertising That Puts Workers on the Honor Roll," *Printers' Ink*, Sept. 20, 1923.

Another interesting method is that employed by at least two book publishers in which at the end of each book the companies and the individuals who have contributed to the manufacture of the volume are specifically named. The Williams and Wilkins Company lists at the end of its volumes the names of the members of the staffs of the composing room, key board, proof room, casters, press, cutter, folder, who have contributed to the manufacture of the book in question.

Shop Committees as Creators of Interest.—The extension of shop committees has meant that delegated workers in many plants are now discussing with managers numerous problems connected with their work. Where these meetings become definite conferences on problems, methods, standards, and improvements in production, experience shows that committees arouse great interest and are of real value.

One of the most suggestive services of Mr. Leitch's "Man to Man" is the account he gives of the active interest workers have in production when they have problems put to them as an organized group and have a stake in the improved results.[1] One of his illustrations is interestingly summarized in the following paragraph:

> A large manufacturer of velvets was having trouble with "seconds"; at times half a million dollars was tied up in goods that contained weaving defects unfitting them for first-grade sale. He put the question up to the employees themselves—they were organized on the representative system. The men appointed committees to investigate, they made tests themselves and they retained experts from the outside to make other tests. They, from time to time, told of their work in mass meetings and received criticisms and suggestions. Soon that whole factory was after "seconds," they improved machinery, insisted on cleanliness, and finally changed the weavers from a quantity rate to a quality. They have now all but cut out "seconds" and under the quality rate the weavers are not only making more money than before, but they say they are making it with less effort than when they tried solely for quantity. But the quantity has also increased. I have through my business associates secured very similar results by the use of similar methods in a plant making linoleum.[2]

Transfer and Promotion.—If the objection is raised that many of the methods here discussed are all very well, but do not help

[1] See LEITCH, JOHN, "Man to Man," pp. 48–62, 67–91.

[2] BASSETT, WILLIAM R., "When the Workmen Help You Manage," p. 113.

greatly to alleviate the monotony at jobs of a highly repetitive character, the answer is that at these jobs a more drastic method must be employed, especially where workers under thirty years of age are involved. There must be a far more liberal use of transfer from one job to another than is now considered expedient. Admittedly, transfer is not popular with many managers (unless it is to stabilize employment) or with those numerous manual workers who have gotten into a blind-alley-job inertia. It seems clear that there is a social responsibility here, especially with the younger workers, to train for transfer, to encourage transfer, to set time limits on the duration of employment at the most repetitive jobs, and try within reasonable limits to move workers on at the end of these periods. Moreover, a few of the experiments made along these lines indicate that with patience and care in the application of the plan, production may be favorably effected by such transfer, and morale in general stimulated.

In rural industrial centers many workers make use of the transfer idea on their own account and elect to do factory work in winter and agricultural work in summer, a division of labor for which there is much to be said. Indeed, there is a real possibility that in some not too distant future our factories may be de-urbanized to an extent that more and more workers can combine indoor and outdoor work. This is the serious proposal of not a few industrial and social scientists.

Similarly, a developed promotion policy may offer an incentive which to a certain extent will increase interest. To be successful such a policy must work in relation to the facts and not claim too much. For the truth is, of course, that election to executive positions is limited by the small proportion of such positions to manual jobs; but with a policy of promotion from within a good deal may be done. It seems to be characteristic of human nature that if a worker has his eye on some goal which he is intent upon reaching, his job becomes for a time less irksome and more significant.

Maximum Introduction of Machinery.—Experience with the mechanizing of hand operations shows conclusively that most jobs where machine feeding is now done by hand are sooner or later subject for mechanization of the feeding process itself. This has proved true, for example, of printing presses, machine tools, textile weaving looms. The progressive installation of automatic feeds into more and more types of machine is inevitable and desir-

able. It means that human labor and attention then has to be devoted to a combination of supplying material, watching for breakdowns, repairing and oiling the machines, etc. None of these are repetitive and monotonous in the sense that machine feeding jobs are; and the work of assembling, supervising, and repairing automatic machinery requires mechanical knowledge and ingenuity of a character that almost inevitably makes the work interesting for mechanically inclined workers. The more complete automatizing of machine operators is a tendency to be encouraged, for it shifts the work to be done to more skilled and more interesting operations. So that although this tendency in its halfway stages seems to increase monotony, the point is to get plants to introduce machinery in a thoroughgoing way. The results in lessening the hard, sheer physical drudgery of lifting, which all the mechanical conveyors and material handling devices have brought about, represent a literal revolution in factory methods which has wiped out hundreds of uninteresting jobs.

Shorter Hours.—A broad social program which looked toward making activity in work a self-expressive part of life would unquestionably include a reduction of hours at certain types of work. It is difficult to generalize here. There are limits to what an individual company can do in this direction at the moment; but without in the least impairing the country's total gross output per year the number of required hours per week could be reduced and a vacation with pay given, both of which would help to solve this problem.

Indeed, the shortening of working hours generally to forty hours a week is a demand which workers will no doubt attain in the next few years, and there is the possibility that employers and workers may eventually interest themselves in Lord Leverhulme's proposal for a six-hour day with two shifts a day.

Our position on this point should be clear. The real need is for a direct attack which seeks to realize the not impossible objective that *each worker in and through his work will feel that he has an outlet for his energies which is self-expressive and satisfying.* With shortened hours, however, the inherent and derived interests here suggested would combine to enable the workers to get a greatly enhanced satisfaction in work.

Suggestion Systems.—The experience of the last few years with the use of suggestion systems points to a number of ways in which they too can foster interest in work.

It is first necessary to remove from the foreman's mind any idea that suggestions from his department reflect upon his ability. Foremen may be brought not to oppose, but actually to encourage, the working of the system. This attitude is more readily assured in some plants by periodically rewarding the foreman from whose department the largest number of suggestions have been received or adopted.

Fairness in the administration of the system is essential. Workers will feel most confident that there is fair play *if they have equal voice with the company in determining the terms on which the system runs, in determining which ideas shall be accepted, and how much reward shall be given in each case.* Such joint action of itself keeps interest alive, especially if, as is desirable, some members of the suggestion committee rotate every six months. This has the further indirect value of educating the committee members in problems of process and technique.

Employees should be acquainted with the terms of the system, the method of determining acceptance, and of evaluating the suggestions, etc., by bulletins, notices in company papers or pay envelopes, and by other means that reach all employees with a reminder at occasional intervals.

Prizes should be given at monthly intervals and with effective publicity. Also public acknowledgment should be made at the end of the year to the department submitting the highest number of adopted suggestions, the individual submitting the largest number, the individual submitting the most valuable suggestions, etc.

The problem of the amount of the compensation for accepted suggestions is not always easy to handle. To have a scheme of only arbitrary flat sums may at times be quite unfair to the employee. We say this with full appreciation of the fact that the worker in any valuable invention is usually building on the company's own experience; but this will, of course, be taken account of in determining the reward. On the other hand, if employees are to keep up their interest in improvement, they must know absolutely that this interest is not to be an occasion for exploitation. Yet it is difficult before trying out a new idea to know its value. Perhaps a combination of two methods could be worked. Each suggestion could be rewarded in accordance with an agreed scale of awards, and when it is seen that the best ones are saving the company substantial amounts (say, after

six months), a more equitable division could be made. If the workers have equal voice with the management however, in the matters above suggested, there will be little danger of employees feeling unfairly treated.

Where the new idea is patentable it is worth while for the management further to protect the workers' rights. In some plants employees, as a condition of employment, have to sign waivers of any rights in inventions forthcoming during their stay. For reasons growing out of the use of some unique trade secret, a few companies no doubt are justified in requiring such a waiver; but ordinarily it would seem to discourage inventiveness from the start. A royalty contract, designed to cover the situation with fairness to all parties where an employee has a patentable device has been drawn and some such method as this is to be preferred to the waiver.[1]

Again, it is important to have suggestions collected regularly from the designated boxes in each department, passed upon promptly (at least once a month) and employees notified as soon as action is taken. Pains should be taken in each case to explain why rejected suggestions are not utilized; and it should not be required that accepted suggestions be put into immediate practice in order to be rewarded.

Employees should have the right of appeal to the committee if unsatisfied with the award.

Only actual manual workers should be eligible for awards under the system. Executives, from the assistant foreman up, are supposed to be looking for better methods as a part of their jobs.

In plants where little is done in other ways to arouse interest, the suggestion system can undoubtedly afford the basis for a healthy start, but unless there is considerable follow-up from the office of the personnel manager there is danger that the interest will lag. For, after all, the method of dropping your suggestion in a slot is singularly impersonal and artificial. Some method more direct, natural, humanly responsive, and more organically connected with the technical job study is desirable.

Factory Fellowship.—Many companies fail to capitalize, as they legitimately might, the enjoyment that people get in working together, the enjoyment of associated activity. This is

[1] PILKINGTON, R. G., "Fair Royalty Contract for Employees," in *Am. Machinist*, vol. 47, pp. 1027–1028, Dec. 13, 1917; vol. 48, pp. 363–364, Feb. 28, 1918.

experienced even where the work itself may be unenjoyable, because the normal person is so plentifully endowed with "herding" desires that he will put up with a good deal if he can be active in congenial company. This makes it a real object to cultivate a reasonable degree of social life in industry which is agreeable and fraternal.

This is not the same thing as being interested in the work itself; it is a derived interest. It has, however, a positive value which can legitimately be utilized. Psychologically, it is true that all activity in the satisfaction of people's strong social sense is pleasurable activity up to a certain point. A social life inevitably grows up in any organization which has its own gossip, traditions, jokes, and by-words; and workers like to be at work in order to be in the swim of the familiar social life. Since the condition of being there is to do the work, the work gets done.

When companies accentuate this normal *camaraderie* by encouraging athletics, dances, dramatics, and other recreational functions, a desire to remain employed may be unduly stimulated. Emphatically, this is not interest in work, although it may be used to lead to it; and where the work itself seems irrecoverably uninteresting, it may be one of the next best substitutes if it is not over-developed.

Something more than mere satisfaction in human fellowship is probably to be counted on. To a certain extent under auspicious circumstances workers may be brought to feel that their work, even when not itself intrinsically absorbing, is part of a larger enterprise which is significant and in which the individual sublimates part of his more personal expression in behalf of a *corporate self-expression* which has real satisfaction. To foster this corporate loyalty in any extreme form is certainly unwholesome, however much employees may temporarily seem to be caught up in it. The danger of exploiting the submissive elements in human nature in this way is great; but a personal pride in the product or good name of the company may legitimately add some interest to work which is otherwise unbearably tedious.

Rhythm.—An almost wholly unexplored field of industrial psychology relates to the use of rhythm and music to make work more interesting.

The conscious mental content of the job is of course unaltered by making the activity rhythmical; but fundamentally its self-

expressive content is altered because to the normal individual the use of rhythmic motions is of itself pleasurable. Apparently a love of rhythm is one of the most deep-seated of human tendencies. Its use for any activity releases unexpected energies and sustains them for unexpectedly long periods. It tends not only to reduce the feeling of fatigue, but the actual physiological processes of fatigue as well. Evidence is not lacking that work done rhythmically is done with less conscious effort than when rhythm is absent, and the utilization of rhythmic motion, either with or without music, seems to have recuperative value from a physiological point of view. Music cannot increase interest in the job; but it certainly makes being at the job more interesting, especially where the motions of the job can be rhythmically performed. It is to this extent another derived interest.

In consequence, at those jobs where the noise of machinery is not too great, the occasional use of music—either as rendered by phonographs, radio, or by the workers themselves in shop singing—may be a positive benefit to workers and to output. This is recognized by many plants to the extent of having dancing at rest periods and lunch hours, and band concerts in lunch and assembly rooms; but this is not the same thing as encouraging mass singing at work or providing music to the rhythm of which operations may be carried on. There is a fruitful field for experimentation here. The injunction of the philosopher, "Give me the man who sings at his work," may still be recovered for fruitful application today.

The Wage Incentive.—Managers often say that "the only thing that interests the workers is what's in the pay envelope." That is not true. The things which stimulate the workers' interest are many and varied. No doubt many managers have supplied no other stimulus than the pay envelope, and hence have not discovered any. The next outstanding step in industrial reorganization must be that *industry shall supply an incentive in satisfactions secured in and through the work itself* as well as in the reward for the work. That this step is imperative grows clearer as it is seen how difficult it is for industry to command interest and cooperation by high wages alone.

Of course, wages must be high; of course, there must be differentials in pay in favor of the better workers; but something besides money and appeals to the possessive and selfish side of human nature is necessary to get interest. The whole man must

have a chance to express himself; and that means giving play to creative impulses, to that desire for recognition in one's circle of working associates which gives to professional work one of its strongest appeals.

Work as Public Service.—Under modern conditions of world-wide interdependence, workers have a right to appreciate two truths; first, that they are servants of mankind—self-respecting contributors to the world's stock of necessary goods, receiving their quota (although perhaps not their rightful one) of necessities and luxuries in return for their own contribution; and second, that the world of consumers must put its faith in the integrity of their workmanship—a faith which would cost the community dearly if the workers were to betray it.

The worker in food products, for example, must not contaminate them nor make any form of poisoning possible. The workers employed in all branches of the transportation industries, from the running of locomotives to the making of automobile springs, may literally endanger thousands of lives by careless workmanship. In every direction the public is called upon to put absolute trust in the accuracy and quality of work; every worker is really upon his honor to do good work. Many workers have never seen their importance in this light; it has never been dramatized to them; their honor has never been appealed to; and one of the highest and most cogent motives to good work is consequently not fully capitalized.

The objection may be raised that it is out of the question to instill into manual workers this conception of industry as public service and of keeping faith with the consumer if the employer himself is remiss in these directions. We see no answer to this objection in those cases where employers' motives are narrowly selfish and methods of manufacture or sale dishonest. Those employers who have sowed the wind reap the whirlwind; and everyone is a sufferer.

It is happily true that a newer conception of the purposes and ethical obligations of industry is gaining headway among employers. As fast as it results in practical conduct which the workers believe to be more just, they can be appealed to and they will respond. No appeal stirs a deeper emotional response from most normal people than the *appeal to honorable and honest service in behalf of one's fellows.* Companies which are not run to meet people's known needs incidentally, but are avowedly organized to

that end, supply a motive to good work which cannot be appealed to under any other conditions.

A realistic view compels one quickly to admit that the number of such companies is small. Private corporate enterprises under present conditions are limited in their objectives by stockholders' claims and by the complexities of competitive organization. A word is therefore appropriate here regarding the problem of ownership.

The Ownership and Control of Industry.—Determination of when and on what terms an enterprise is to run is in the hands of its owners. If it is true that interest is most deeply stirred only when a project is self-owned and the results of it disposed of as one sees fit, there are, of course, limits to the efficiency of an interest-arousing program. The situation of absentee ownership no doubt accounts for a good deal of present unresponsiveness, and it also accounts for some of the interest today displayed by managers in profit-sharing and stock-purchase for employees. How far wise plans of this sort can help to get interest is as yet indeterminate, but many ill-conceived plans are certainly doomed to disappoint all concerned because no real partnership in owning is effected or intended. Clearly the function of ownership and investment has large responsibilities, and whether or not manual workers should properly be asked to assume them seems an open question; yet it is a question which is related to this one of securing interest.

Another complicating factor in this connection is mentioned by an astute economist who says that:

> A business control of the rate and volume of output is indispensable for keeping up a profitable market, and a profitable market is the first and unremitting condition of prosperity in any community whose industry is owned and managed by business men. And the ways and means of this necessary control of the output of industry are always and necessarily something in the nature of sabotage—something in the way of retardation, restriction, withdrawal, unemployment of plant and workmen—whereby production is kept short of productive capacity. The mechanical industry of the new order is inordinately productive. So the rate and volume of output have to be regulated with a view to what the traffic will bear—that is to say, what will yield the largest net return in terms of price to the business men in charge of the country's industrial system.[1]

[1] VEBLEN, THORSTEIN, "On the Nature and Uses of Sabotage," *The Dial*, vol. 66, pp. 341–346, Apr. 5, 1919.

Whatever truth there may be in such statements as these deserves to be carefully considered; for there will certainly not be interest in the work in the deepest sense, if the activity of the worker is found upon analysis to be more expressive of the will of some employer or banker, than of the inner creative impulse of the man himself.

Practically speaking, the workers today do not interest themselves in the ownership at the most of more than a few shares of stock; so that even in those cases where this small degree of ownership obtains, they may naturally come to feel that they are being asked to interest themselves in an enterprise from which their own return, although slightly higher than their wages, is still widely out of line with the return of those who promote the enterprise and have large stock interests. This thought that while they get chiefly wages for work others get large income for ownership may in time give rise to a feeling of injustice. Such a feeling will minimize interest in work. People with genuine self-respect are loath to become absorbed in a job out of which they think themselves exploited, *even if there are elements in the job itself which arouse interest.*

Conclusion.—Our conclusion is that much may be done by personnel managers to restore interest by both intellectual and emotional appeals; but such efforts cannot be completely successful where absentee ownership and single-minded devotion of managers to the stockholders' profits prevails. Psychologically, interest at its best and fullest is tied up with some measure of control over the way in which interest is sought and over the results accruing from the activity. Just how this is to be achieved is a matter on which considerable experimenting will be

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required, accompanied by some modification of the typical managerial motives.

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CHAPTER XV

TRANSFER AND PROMOTION

In the normal individual, interest in work comes from a sense of the work's inherent appeal, of its significance and value in his life and development, of the approval that it wins in the eyes of others. To secure that interest under present industrial conditions is not easy without the special provision of such methods as were discussed in the previous chapter. The place that transfer and promotion may hold in such a plan is large, because both are means of appealing to fundamental human characteristics. Both are means of breaking a dull routine, of holding out promise of change and new opportunity, of appealing to the individual's pride of work, mastery, and desire for advancement. Thus, the handling of both has become a definite and important personnel function which more and more is receiving consecutive attention from managers and giving rise to a considerable body of favorable experience.

Transfer is a shifting of workers among jobs requiring approximately equal abilities, for the purpose of securing a better adjustment of worker to work, of providing a varied outlet for his energies or of regularizing his employment so as to supply steady work.

Promotion is an advancing of workers to new positions requiring greater ability, involving greater responsibilities, and commanding higher pay.

Unfortunately, many companies are still unconvinced that there are business values in systematically encouraging transfer and promotion. They may even believe that transfer is not feasible or desirable and that workers prefer to stay at one job; that promotion need not be considered except at those occasional times when an executive has to be replaced. The essential point to emphasize is that a company first should have a sympathetic attitude toward the desirability of a defined policy on these two matters. Therefore, why it is good business to have a constructive program in these two fields will be considered first.

Reasons for Transfer.—Using transfer to increase interest in work by holding out the opportunity to shift from one job to another has been proved to be of real value in a few companies. This use applies especially to jobs which are found to be highly monotonous. Not only may labor turnover be reduced in this way, but the workers' zest for work can be kept stimulated and their sense of growth and personal development can be kept alive if systematic rotation is introduced.

Wherever initial selections have been made unwisely, there is need for a definite transfer procedure in order to get the workers adjusted by shifting them to jobs they can do best and really like.

Poor adaptation may be due to other causes:

To the worker himself or to the character of the work. If the worker manifests a preference for another job, there is at least a presumption in favor of it being good business to consider transferring him.

Knowing that an employee can be transferred, if he wants to, greatly reduces the number who leave without notice and increases the number who are content with their jobs because they know they can change if they want to.[1]

There may be "dead-end" jobs that lead nowhere at which it is unfair to hold the worker if the work or the pay offers no future.

There are other jobs from which transfer should be readily provided on health grounds. If it is found that work brings on special strains or predisposes to certain diseases, the worker should be required to transfer.

In a few companies the employment and medical departments jointly set a time limit on jobs where there is likelihood of occupational disease, as for example, in sand blasting, curing hides, certain processes in rubber manufacture, or in contacts with, and exposure to, poisonous materials. At the close of this time limit the employee is reexamined physically to ascertain if transfer is necessary. In an extremely noisy department of a large rubber concern workers are examined at frequent intervals and those showing slight defects in hearing are transferred.

Another important reason for transfer may be lack of work in the department where the worker is originally placed, due either to a slump in orders or to seasonal fluctuations. In such cases the desirability of providing ways to keep on as large a body of trained workers as possible will be seen at once by the personnel

[1] MEINE, FRANKLYN, Unpublished lectures at Harvard Graduate School of Business.

manager who under the old method had to build up the force afresh each season.

There are occasionally also reasons of personal maladjustment between foremen and workers or among a group of workers which make transfer beneficial to shop harmony. Where people do not "hit it off" together, there is every advantage in rearranging the personnel until a more companionable grouping is secured. Sometimes these personal animosities are racial in origin, and such racial prejudices to a large extent should be respected.

Reasons for Promotion Policy.—There are important business reasons for definitely formulating a promotion policy. These benefits will reflect in the temper of the organization as a whole, in the efficiency with which the employment department operates, and in the attitude of the employees.

In the first place, a promotion policy which is understood by the employees is a concrete expression of the management's recognition that employees do grow and develop and aspire to new and larger employment opportunities. In the second place, this policy will encourage the ambitious and able individuals to come to the front and take advantage of whatever training or understudy positions may be offered for promising individuals. In the third place, the intelligent pursuit of this policy may reduce labor turnover by enabling workers to step up in the organization rather than step out when they feel that they have reached a stopping place at their particular position.

For all these reasons a promotion policy should have the result of increasing the sense of corporate unity among the benefited individuals, to say nothing of the fact that it definitely capitalizes for the company's benefit the experience and technical knowledge of the people who are advanced.

Prerequisites of Effective Transfer and Promotion.—All systematic plans of transfer and promotion presuppose that the employment office is responsible for carrying them out. In the production departments the actual order for transfer and promotion should be issued by the production manager's office, but it would come largely at the instance of the employment office.

This necessitates careful follow-up of workers by the employment manager in order to be sure that they are properly selected for their new work, in order to discuss with foremen candidates for promotion, and in order to arrange transfers in accordance with a prearranged schedule.

All work of adjusting employees into the most suitable positions, all planning of transfer, and all promotional charts must be based on intimate knowledge of the content of jobs if the results are to be scientifically sound. Job analysis, or in its absence the less intensive job specifications, are needed for each position. For it is essential to know the precise nature of the abilities and the relative amounts of ability which the several jobs require. Job specifications also throw much light on the similarity of jobs, or on the fact that similar training may be utilized at different jobs.

Methods of Transfer.—Some firms, in order to place the worker to best advantage, secure on the application blank all possible information about the applicants' previous work, special talents, and interests. From the point of view of offsetting the deadening results of machine tending, a policy of transfer requires a schedule of maximum time limits beyond which workers are not kept on jobs. For example, after study of the operations, a factory might plan to rotate all the workers at certain jobs with not more than a six-month stay at each.

Such an arrangement, of course, should be administered with a good deal of flexibility; for it requires some readjustment in the mental habits of executives and workers; but once under way its stimulating effect on all is tremendous. For one thing, such systematized transfer demands more extensive, as well as perhaps more intensive, training. The policy of requiring new workers to learn several operations at the start is in line with this suggestion. Indeed, this has been found exceedingly helpful in plants where seasonal fluctuations make it necessary for employees to work in several departments if they are to be sure of consecutive employment.

A few plants have developed the "flying squadron" idea among their manual workers. The plan is to select a group of from a dozen to two dozen workers who have worked through the several processes in a plant and demonstrated their versatility, and make them a team which can be turned temporarily into any department where production has slumped. In fact, a position on the squadron is frequently regarded as a promotion in honor or earnings or both.

Workers' Attitude toward Transfer.—Managers have occasionally found that workers are not enthusiastic about a systematic policy of transfer as an offset to the routine character of their

work. The reasons for this inertia should be apparent. It may be due to lack of varied training; knowledge that earnings may be temporarily reduced immediately after transfer; general unresponsiveness due to long continuance at one job in the course of which the worker has lost his resilience; or, finally, to a mental constitution which loves routine and hates to change even when that change might in the long run benefit the individual. All but perhaps the last of these causes may be met by definite action in one direction or another.

Particular attention should be paid to keeping wages from suffering temporary reduction. While some managers may wonder why they should not leave alone workers who have become incapable of demanding some variety in their work, the answer is that for the younger workers, at least, the long-time results of such routine will prove deadening to their initiative, energy, good will, and interest. The values of youthful enthusiasm are quickly lost if the newcomers find that work holds no future and no interest. Therefore, the manager who understands human nature will appeal to its creative side by encouraging transfer even when he meets with actual indifference in its introduction.

Methods of Effecting Promotion.—One practical step in caring properly for promotion is to prepare charts carefully outlining the possible successive steps in advancement which the workers in each department may take. The charts should indicate definite lines of promotion within and between departments, so that every employee can see what opportunities for responsibility and increased reward are before him if he makes good; and can find out what special training he requires before he can advance.

These opportunity charts should be based on detailed job specifications, since, in order to grade jobs scientifically, the employment department has to know the content of the different jobs and the necessary qualifications of the individual workman. A graded classification of occupations for advancement shows the worker the particular relation of the job he occupies to the one next in line for which he may qualify.

Some concerns encourage employees to become acquainted with the duties, responsibilities, and opportunities of jobs closely related to their own. The opportunity to advance from one position to the next logical step leading ahead is made to act as a real and wholesome motivation to good work.

The charts, of course, must present a true picture. Where promotion depends upon special training and superior ability rather than upon mere length and faithfulness of service, that should be frankly stated. For possibilities of advancement may be easily overstated and false hopes be unfairly raised. It is just as bad to excite unrealizable ambitions as it is to offer no incentives at all.

Promotion as a general policy, therefore, should go hand in hand with definite instruction for higher positions. Much of the elaborate training of large corporations is really directed to the discovery of talent for promotion and cultivating special abilities where found. Eagerness for advancement and youthful ambition are, managers should remember, no substitutes for real knowledge of the subject matter of the industry. A thorough promotional policy presupposes a systematic training policy.

Even with a training procedure there will be much lost motion if care is not taken in selecting those who are to profit by courses and special training for promotion. Selection for executive work and for positions of increased responsibility, in the light of modern methods, may be improved by the careful use of special tests. The use of intelligence tests and rating scales to meet this need should be carefully considered.

Actual performance records are also important in this connection, although the fact that an individual is proficient at one type of work does not necessarily argue that he will be equally proficient at a more advanced type. What is rather to be looked for in such records is the quality of the worker's craftsmanship and his faithfulness at the job. In companies where jobs are carefully classified by name and graded into a list in order of their wage worth (as discussed in Chap. XVIII), the periodic rerating of individuals may be the means of making it possible for them to realize the promotional opportunities within their own class of work and to other more difficult work. The policy of periodic rerating is now followed by a considerable number of companies with beneficial results.

One method of cultivating the training idea in relation to promotion without resort to formal classes is the so-called *three-position plan* outlined by the Gilbreths. Under this plan each worker is conceived as belonging to three groups. He is an instructor in the group of workers just below him among whom he has previously been a worker; he is a worker in his own group;

and he is a student of the work just above that which he now does. As an actual plan of action in any plant, this idea may be too elaborate to apply throughout; but as embodying a helpful attitude toward promotion the plan is certainly suggestive. It encourages a dynamic view of workers and of jobs, tends to give the worker a chance to pass on to those who supersede him at a job the best in his own working methods, and tends to spur him to new interest in the work of his superior.

A more formal training procedure in preparation for promotion is the flying squadron idea applied to executive positions. Under this arrangement as used in a number of large companies young men work a given number of months in each department, after which training they are advanced to a minor executive position from which their rise depends on their own demonstrated ability.

The method of requiring each executive to train and have available an adequate understudy for his own position is valuable as opening up promotional opportunity and as sound organization policy. Foremen, factory superintendents, store department heads, and buyers should be required to select and keep in readiness men who can do the bulk of their work whenever they must be away and who can succeed them if they leave. The policy of understudying executives thus rounds out the promotional policy.

Many firms are now definitely encouraging their employees to apply for higher positions for which they believe they qualify. One prominent company encourages its employees to fill in a "better advantage notice," realizing that some among its men may be working out of their regular line or trade. Every employee is asked to list his qualifications for other jobs than the one he is doing; the extent of his previous experience in other work, and his estimate of what he would like to do or can do better. This notice is given to the foreman, who may transfer or advance the employee to more suitable work or communicate the worker's desire to the employment department. Among the drill press operators, for instance, the company found a Swiss watchmaker for whom the manager thereafter got work at his own trade. Again, the heat-treating department needed an expert fire-brick layer, and found such a man running a drill press. He was a master at his trade of fire-brick construction, and the company made him general inspector of furnace conditions and repairs.

Some companies issue booklets describing the opportunities at the several positions and encouraging workers to undertake

special study for them. Other companies, when an opening higher up occurs, have the excellent plan of posting notices throughout the plant asking for applications.

Promotion to Outside Positions.—When everything possible has been done, however, to open up promotional chances, some firms will have more aspirants for advancement than they have positions. In such cases the value of a policy of promoting "up and out" should be considered. A number of firms have, for example, found that they get the benefit of workers' interest, energy, and zeal sufficiently in a few years under such a policy to make it pay them to help their workers after that time to secure higher paid positions elsewhere. Especially where cooperative relations may be established among the employment departments of a number of firms, there is no doubt that promotion "up and out" may be practical, profitable to all concerned, and a spur to new interest.

Properly conceived, promotion is not necessarily in terms of larger earnings. A new position with more varied or more interesting work, with greater responsibility and greater prestige, may properly offer a wholesome incentive—especially among salaried workers where earnings are well above a subsistence level. In the shop, on the other hand, promotion may have to be more largely in terms of higher wages than of a change in work. The important thing is that there be agreement throughout a plant as to what changes in work or pay shall be esteemed as promotion; and that then there shall be some organization of the approval of fellow workers for those who do secure the advance.

The Limits to Promotion.—There is in most organizations room for much more promotion from within than now occurs. Many managers and foremen confess that they hold a worker at his position if he does his job well. There are, aside from this attitude, distinct limits to the promotional opportunities. The organization of work in a modern enterprise strictly limits the ratio of directive to manual workers. It is probably true that many organizations would profit by a somewhat higher ratio of supervisory to actual labor than is now typical. One foreman to forty or fifty workers may often wisely give way to a basis of one foreman to every twenty or twenty-five, provided the foreman is a skilled supervisory expert and leader.

Many managers and foremen have found that workers at the bench have resisted the opportunity to take minor executive

positions because of the responsibilities entailed. There are, however, enough ambitious younger workers to make it worth while for managers to try to open up in every possible way opportunities ahead into which they may advance.

Where seniority is the sole basis of promotion, there may be an artificial limit upon the advancement of young men, which is a serious check to ambition. The object sought in most seniority plans is, however, the laudable one of assuring continuity of employment for the older workers, rewarding their faithfulness and presumably superior ability due to long service, and encouraging workers to remain with the company. These ends, however, usually may be better secured in some other way than by the seniority plan. What is really needed in most corporations that use this basis is rather an adequate pension plan, definition of standards of a fair day's work, joint determination of the conditions of discharge, and joint recommendation of the candidates for promotion on a basis in which capacity figures equally with length of service. Seniority may, in certain cases, constitute a fair basis for advance; but the complicating factors are so many that it is usually an unduly arbitrary and inflexible arrangement.

Conclusion.—Both transfer and promotion if they are to be pursued as consistent policies, will require courage, insight, experimentation, and patience on the management's part. There are significant indications in the recent experiences of a number of plants that efforts in this direction will be amply repaid. At the present stage experiments, especially with transfer, must be rooted largely in faith—faith that the positive qualities of human nature will respond when given a chance.

Any transfer or promotion plan which is to be permanently sound, therefore, should meet this test: Does the plan stimulate and draw out the desire of people to be creative, to be interested in their own activity, to excel, to win approval, to develop in power of self-expression? Every provision which may be introduced into an organization to release human energies and talents in these ways will help to bring a new spirit and a new result in terms of output.

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CHAPTER XVI

SHOP RULES, GRIEVANCES, AND DISCHARGE

This chapter considers the several topics which relate closely to the maintenance of order and good conduct in the shop—shop rules, absenteeism and tardiness, individual delinquencies of all sorts, grievances, and discharge. All of these matters affect the permanency and the effectiveness of the personnel; and they are matters which must be handled with special consistency, deftness, fairness, and wisdom, if results are to be at all satisfactory.

They cannot be considered, however, without relation to a variety of methods already discussed, the proper operation of which has its beneficial influence on discipline and morale. It should be understood, therefore, that the maintenance of good order requires the smooth operation of job analysis with jointly set production standards, payment, interest-arousing features, etc. Only the topics usually thought of as entailing specific rules and procedures for their proper handling are here treated.

The Educational Motive.—One fundamental emphasis should underlie the entire attack on the disciplinary problem. It should be administered with the educational, preventive, and positive attitude uppermost, rather than the corrective or punitive. This means that all executives should be continually reminded and stimulated to assure that their handling of all human adjustments is animated by patience and reasonableness. The handling of each case should leave each employee more understanding and cooperative. The provoking of permanent resentment is sure proof of the wrong handling of a disciplinary problem. Rather, each case offers a genuine chance to find out what gave rise to the difficulty and how its recurrence can be avoided, both in relation to the individual and in relation to conditions. Thus only can the best educational results be obtained.

Correction of misunderstandings requires in every instance that both parties be prepared to examine coolly the facts and the issues; and be ready to admit it when they are at least partially wrong, and be ready to correct their own mistakes.

The time is past when disciplinary difficulties can be solved by highhanded and arbitrary managerial decrees. It is a sound dictum of industrial no less than of political philosophy, that "only an unmitigated despotism demands that the individual citizen shall obey unconditionally every mandate of persons in authority."[1] The time has come when from a strictly business point of view the control of internal shop affairs must be considered by management and workers *together*.

An important part of the training work is to make plain throughout the organization the common interest of all in an orderly and law-abiding shop. There may indeed be issues on which workers and management will find themselves at odds, such as over pay and hours. The management may also want rules which confine the worker narrowly to his bench. The workers may seek more latitude in shop conduct than the management believes expedient; but once agreement on shop regulations is reached, it is in the common interest that they be adhered to by all. A reasonable degree of "law and order," promptness, and subordination of individual whims is a necessary condition of shop efficiency. Work of any sort presupposes for its effective doing a freedom from undue interruption and distraction, a regularity of attendance and effort, which in the long run benefits all.

The problem of securing this proper balancing of individual and group prérogatives is usually spoken of as the problem of discipline. Words are such subtle instruments that emphasis on the disciplinary aspect usually seems to imply automatic discipline. Many foremen still have on their desks the motto: "If you want to know who's boss around here, just start something." This is manifestly the wrong note. It develops the opposite of the educational attitude.

In treating disciplinary problems executives are working in the psychological realm where attitudes are all-important. For attitudes on one side breed corresponding attitudes on the other. Arbitrariness and firmness on the part of the management give rise to caprice and obstinacy among the workers. Reasonableness, patience, sympathy—these occasion a response which is in the same temper. Hence, the sooner the notion of "disciplining the shop" can be dropped, the better it will be. The time has

[1] Mill, J. S., "Considerations on Representative Government," Chap. II.

come, as one wise executive has said, to shift the emphasis from authority to responsibility. When it is made clear what is expected of the worker and what obligations have been laid upon him, the temptation to infraction of prescribed provisions is greatly reduced.

Company Rules.—Every organization has a certain number of rules which it is in the common interest to adopt and adhere to. Such rules usually relate to the following subjects; attendance and records of attendance, safety and the observance of safety rules, health and the observance of hygienic precautions, matters of personal conduct like falsifying records, drunkenness in the shop, sex irregularities, profanity, fighting, stealing from the company or other workers, smoking, and special rules required by the nature of the work.

It is important to consider how such rules should be formulated; how they should be adopted; how workers should be acquainted with them; how they should be enforced—which involves the question of penalties and fines.

There are in the experience of many progressive plants three steps in the development of control. Originally, the management itself formulated the rules and posted them on the bulletin boards. Presumably, the workers read these rules; and continuance at the job was taken to mean their agreement to abide by them. This is, of course, the simplest way of achieving good behavior in the shop. It carries with it only one shortcoming. It does not assure such good behavior. It tends only to assure a nominal observance of rules, while the management is watching. Not knowing why existing rules are in effect, workers see no reason for inconveniencing themselves to carry them out. This method wholly ignores the training motive. The appeal is, implicity at least, to the fear motive, and it has all the weaknesses that the appeal to fear usually creates—sullenness, stubbornness, and desire to "get away with" infringements just for the adventure.

The second stage in the effort to secure effective shop control has been to give over to the personnel department the formulation of rules. This presumably results in a more mature consideration of the reasonableness of, and necessity for, such rules as are adopted, than is the case when no expert executive devises them. Moreover, it supplies a method of transmitting rules to the workers, since it is a frequent practice to include all regula-

tions in the employees' handbook, edited by this department, and given by it to every employee.

The third stage is to make the formulation of rules a subject for conference with workers in shop committees, or with labor unions if there is a collective agreement. Where either of these instruments of joint dealing exists, it forms the natural agency through which the problem of shop control should be considered. For it is only through the development of self-control and voluntary acquiescence in rules that permanent social control can be obtained. Indeed, so essential is some organized expression of the workers on these matters that if no shop committee existed, we should be prepared to recommend one if for nothing else than for this purpose of helping to draw up, adopt, and enforce the shop rules, and to consider shop grievances.

Principles of Shop Control.—The company rules are, it should be remembered, the local ordinances of industry, and if their essentially legislative character is borne in mind, managers will come naturally to the following conclusions:

The character, scope, and content of rules should be agreed to by the workers or their delegates. If such agreement is not definitely secured and the workers find any of the rules unreasonable, they will be restive under them and reluctant to observe them. Indeed, the mere fact that they are laid down by someone else is sufficient reason for many people to object to them; whereas they will willingly enough subscribe to even more stringent rules if they themselves have a hand in framing them. Sound government in industry, as elsewhere, is based upon the voluntary consent of the governed.

Rules should be as few, as simple, as reasonable as possible. They will thus the more readily command the loyal assent and observance of all.

Rules should be well advertised to all affected by them. No one method of publicity is alone sufficient. The bulletin board should be used; likewise the company magazine, the employees' handbook, inserts in the pay envelope, and patient verbal conferences with any illiterate workers.

Penalties imposed by rules should in the same way be made known to all and agreed to in conference.

Finally, there should be some definite agency within the shop to which the employee can complain or appeal if he feels that he has been wrongly accused of breaking a rule,

or that some mitigating circumstance warrants an exception in his case.

How should rules be enforced? The usual threat which is held over the worker's head is discharge. We shall consider this method presently. Some companies impose a fine for loss of tools or identification badges; in some plants an individual "progress record" is kept, and all breaches of rules are noted thereon. This record is then taken into account in determining pay advances and promotion. Other companies adopt a more positive policy and reward faithful observance of rules by an occasional half-holiday, a longer vacation, or a bonus. In all these cases, the management acts as the sole judge.

With the growth of the shop committee idea, this procedure will tend to change almost automatically. For once employee representation exists, any interpretation of rules or imposition of penalty which is felt to be unfair will be immediately taken up by the shop committee. This committee action has, moreover, its positive side in helping in the determination of ability and good conduct. Also, managers who make use of periodic individual ratings without taking account of workers' estimates of each other lose substantially in not getting a true picture of each worker's attitude. The workers themselves frequently know more than the management about the hour-to-hour attitude and worth of their fellows in the shop.

It will be said, however, that to act in the direction of autonomy in the control of shop conduct would invite disorder and confusion. Experience does not confirm this fear. Rather it has shown in the shop committees thus far operative on disciplinary matters that when employees are given a responsibility they are likely to exercise it more vigorously upon themselves and their fellows than they would tolerate its exercise by another. Group discipline, when it is not suddenly thrust upon a group, can always furnish a more resolute and insistent control than discipline imposed from without. Also, it is vastly more educational.

The management must usually take the lead in bringing about a mutual recognition of the value of order, system, and promptness. It must be leadership, however, in a joint enterprise, the joint enterprise of assuring proper shop control.

It is but poor education that associates ignorance with ignorance, and leaves them (the people), if they care for knowledge, to grope their way to it without help, and do without it if they do not want it.

What is wanted is the means of making ignorance aware of itself, and able to profit by knowledge; accustoming minds which know only routine to act upon and feel the value of principles; teaching them to compare different modes of action, and learn, by the use of their reason, to distinguish the best . . . When we desire to have a good school we do not eliminate the teachers.[1]

In short, shop control is best secured when it is administered jointly and when the management assumes the rôle of apostle, but not dictator, of law and order.

Absence and Tardiness.—Many plants today suffer a loss of production due to absence and tardiness which may approximate loss caused by labor turnover. Unquestionably a careful effort to control these two items will be to everyone's interest.

Reduction of absence and tardiness requires, in the first place, knowledge of their causes. Such knowledge is not obtainable without a close check-up of each instance. This is secured in some companies by having each absentee and all workers who are tardy more than three or four minutes report for work *via the personnel office*—a practice which of itself has tended to reduce irregularities in attendance. When, as is done in several companies, chronic delinquents are brought before a committee of workers, the amount of broken time is found to fall rapidly.

A procedure of absentee control should include an absence record sent by the foreman of each department to the personnel office within half an hour after starting time each morning. This record should contain the name of each absentee, and should as a matter of routine go in duplicate to the employment office, the nurse's office, and the planning department. Absences can thus be looked into before the worker returns, and the day's assignment of work be rearranged in accordance with the attendance.

Follow-up of absences involves, however, one of those delicate points of procedure in which almost everything depends on how it is done. A visit by a company representative to the absent worker's home on the first or second day of his non-attendance, may be a kindly and considerate act of inquiry and proffer of help, or it may be used in a most objectionable way as an occasion for prying into purely personal affairs.

It is not, however, thought desirable to discourage the practice of follow-up of absentees by personal visits; but the good will of the working-class community will only be retained in the long

[1] Mill, J. S., *op. cit.*, Chap. XV.

run if the visit is made by a kind, tactful, and discreet woman nurse whose natural first concern is a solicitude for the health of the absent worker. If the worker is not sick and if he or his family does not *volunteer* information as to the reasons for the absence, the nurse's work as an agent of the company should be considered finished. If the worker wants to look elsewhere for a job, if he wants to go shopping, if he has earned all he cares to in the week—that is his concern; although he stands, of course, to receive any consequences of unexcused and unexplained absence which may be jointly adopted and embodied in the shop rules. It is, of course, a legitimate and often necessary work of management to endeavor to educate employees into more responsible and more regular working habits.

A drive to reduce lateness and absence will usually disclose other remediable causes besides sickness. Bad transportation, unwholesome recreational provisions, poor housing accommodations with the consequence of poor sleep, too hard work, unhealthy and unattractive working conditions—these are all familiar contributing causes, and they demand simultaneous consideration.

Positive work in bettering attendance can also be done by giving conspicuous notice and public mention to those who are regular in attendance. By this sort of public record an emulative spirit between departments can be usefully encouraged. Much can also be done in the direction of encouraging workers to notify the company both of contemplated absence in advance or by telephone on the day of absence if it is suddenly required. Many companies, because of its beneficial effect on attendance, justify the provision and loan on rainy mornings of dry shoes and stockings, and on rainy afternoons of umbrellas and rubbers.

Attendance at times is used as a factor in payment; but that such recognition should take the form of an attendance bonus seems an unduly artificial and permanently unsatisfactory method of securing something which the management has already contracted for—namely, the regular attendance of its workers. It is usually poor policy to give special rewards for fulfilling obligations which it is in the nature of the agreement to fulfill.

Full and regular attendance is like other items in sound management in that it is important but should not be a fetish. When executives do not send a sick girl home, when they send a "strong-arm" man to corral absent workers, when the worker

who is a few minutes late is made to lose a whole morning's work, when sick employees are encouraged to return to work before full recovery, regular attendance—which is really a means—is being unwisely made an end.

Moreover, it should be remembered that in some cases absence may be a physiologically sound "defense mechanism"—dictated by the worker's feeling that he is "fed up" on work and needs a change. Any company which pursues a firm policy on regular attendance should consequently be prepared to adopt the essential supplementary policy of regular holidays and vacations. For, although it is important to be able to count on the worker's presence when the shop is running, managements must realize that under present conditions regular attendance for 300 days a year is likely to be for the average human being a serious physical and mental strain.

Individual Delinquencies.—Frequently some offenses and violations of rules are made the cause of absolute discharge. Definite and firm treatment of flagrant dishonesty, immorality, and wilful disobedience is certainly necessary; but it is especially important here to remember that a man should be tried by a jury of his peers; should have the chance to speak fully in his own defense; and should be considered innocent until his guilt is established.

It should further be remembered that the black-marking of a man for a first offense may debar him from securing employment anywhere in the locality. Justice may helpfully be tempered with mercy since the prerequisite of reform is not the aloofness of other workers and employers, but a disposition to give the delinquent another chance to make good.

Moreover, when any serious offense against the statutory law has been committed, the company should not forget that unless satisfactory adjustment is immediately effected, the state and not the employer is the one to see justice done.

Grievances.—A grievance is an evidence of some temporary misunderstanding and maladjustment in the relation of the worker to the company. It can be treated in one of two ways. It can be ignored—in which case a sense of thwarted and suppressed desire tends to develop. The original cause of the maladjustment tends to be magnified or distorted and if other grievances occur before the first is corrected, a progressively intense, sensitive, and unreasoning conviction of ill-treatment is fostered. "Certain specific grievances, when long uncorrected,

not only mean definite hardships; they serve as symbols of the attitude of employers and thus affect the underlying spirit."[1]

The second method of treatment is, therefore, the only safe one. Let in the light, air, and sunshine upon all grievances! Keep the air clear and the atmosphere free of any vague uneasiness. This can be accomplished in only one way: Have an organized channel of communication through which the worker can make his grievance heard with confidence that it will be promptly considered.

This organized channel will be effective to the extent that it displays fairness and thus retains the workers' confidence.

There have been several theories as to the best ways of handling shop maladjustments. The first is the theory of the manager's "open door," a relic of the days when the majority of shops were small, an attitude which finds expression in the sentence "my door is always open and any worker that has anything on his mind can come right to me." The success of this method of treating with employees depends on several factors. The manager's fairness and equanimity of temper must first be assured; and he must be regularly on the job. It must be clear that the worker knows that this channel exists; that he dares to use it; and that if he uses it, he will not be discriminated against in the shop. The question also arises as to what is to happen when all workers desire to press the same demand, but find, as is usual with the "open door" theory, that the manager "will treat with the men as individuals, but will *not* receive a committee." There are, in short, too many qualifying conditions to assure that maladjustments will find their way through the "open door." If they do not, a congestion of ill will develops which has positive dangers.

The second way of handling complaints is through the personnel department. The personnel department can play an important part in collecting the facts regarding every grievance considered; and frequently it can effect a settlement of minor, personal frictions which need not take the time of a joint committee.

This department, however, in certain plants is being asked to serve as the channel of communication with the workers, as the medium of conciliation and the employees' spokesman. The

[1] *Report* of President's Mediation Commission to the President of the United States, p. 19, Washington, 1918.

members of the personnel department are conceived as moving about the plant, mingling with the workers, listening to their comments, and establishing a cordial relation which makes the personnel worker the natural confidant of the worker in trouble. We have throughout these pages urged the necessity for personal contact between management and men, but to carry this idea to the extreme position which makes of the executives in charge of human relations, *the* agents for grievance consideration, or the mouthpiece of the employees, is radically to misconstrue the function of personnel administration. The personnel administrator rightly conceived is one of the management. True, he is that one of the management presumably best equipped by insight, special training, and experience to know the workers' point of view and desires; but the same limitations upon communication between managers and men which apply to the "open door" theory, apply also to the use of the personnel department. It is still implied that workers know the channel; dare to use it; can use it without prejudice; can use it with expectation of prompt and fair action upon their case. It is still assumed that there are no grievances or demands which are a group affair; that in all matters affecting his relationship with the employer each worker is concerned only as an individual. It is assumed, moreover, that some managerial agent can speak for the workers better than they can speak for themselves.

It has probably been true that some personnel departments have been introduced with a desire to find out in any possible way what the workers were thinking; to be, in other words, a high-grade department of information. This is definitely an exploitation and a misappropriation of the true conception of personnel administration, and any management which allows the workers of its personnel staff to give validity to such a view by their activities is doing a serious injustice to the whole idea of sound management. It is true, of course, that the existence of a personnel department, the personal contacts which its members make, the point of view which it espouses, all tend to make the administration of human relations intelligent and satisfactory. That is a purpose quite different from having agents of the management mingling constantly among the men to find out what they are thinking and hear what they are saying.

In fact, this method borders too closely upon a highly questionable method of discovering the workers' complaints. This third

method is the use of detectives in the plant. Some managers have done this because, as they said, "How else are we to find out what they think? We don't speak Polish (or Italian, or whatever tongue it may be) and they don't speak English; and besides, we must keep out agitators."

There are no problems of shop maladjustment about which the management needs full information *which cannot be better discovered in some other way than through detectives. Their presence in a plant can create more suspicion, ill will, and distrust in a month than all the activities of a personnel department put together can banish in a year.* What the detectives learn may be the basis of laudable corrective effort on the management's part; but in the majority of cases that effort is foredoomed to be fruitless of truly better relations, because the workers know that they are not trusted, that they are being spied upon, that any spontaneous efforts at self-protection and self-improvement will be immediately suppressed; and where people's native self-respect is not being appealed to, no fundamental benefit is resulting.

A far more fruitful method of establishing a fair basis of grievance handling is the shop committee or employees' association. Short as has been America's experience with these organizations, it has been long enough to indicate that much can be accomplished through their use in keeping adequate channels of communication and personal association open. Much can be done to make vocal and intelligible the workers' thoughts, demands, and desires. When the grievance concerns the basic terms of employment, its consideration would naturally go at once to the special agencies for dealing with those matters subsequently discussed in the chapters on job analysis and payment.

The usual plan where shop committees operate is to set up a line of appeal to be taken if satisfactory adjustment does not occur. This usually starts with the foremen, goes through, perhaps, to the personnel department, and from there to the joint committee.

Especially in large corporate organizations, there are other complex and baffling grievances to reckon with. Both office employees and executives themselves should have someone to whom they may turn for the consideration of their maladjustments. Jealousy, pride of place, suspicion, ambition, taking credit for another's work—these are all such a source of waste, friction, and heat in executive groups that some methods of mini-

mizing them should be sought. While it is probably true that a formal grievance-handling agency will be of little value, much can be done in a personal way to eliminate these difficulties, if the head executives, especially the personnel manager, will keep constantly in mind the need for freeing executive organization from irritations and disturbances of this sort.

Discharge.—Discharge should be recognized by executives for the important item it is in the affected worker's life.

> So heavy a penalty as the dismissal of a workman (involving to him a serious dislocation of his life, the perils and demoralization attendant on looking for work, probably the uprooting of his home and the interruption of his children's schooling, possibly many weeks of penury or semi-starvation for his family and himself) ought to be regarded as a very serious matter.[1]

It is therefore pertinent to inquire how discharge is handled and how it might be handled to assure fairness to the interested parties. Four general types of procedure are in use. First, there is the old method of allowing the foreman full responsibility. Where personnel departments have been set up, they are rapidly supplanting the foremen.

Indeed, this second method has gained greatly in favor because the number of discharges has fallen 20, 30, and in one plant, as high as 65 per cent without any diminution of effective shop control being noted, *as soon as the power of absolute dismissal was taken from the foreman* and lodged in the personnel department. The foreman is too close to his workers, and not sufficiently in touch with the needs of the rest of the organization to allow him to have final say over complete discharge. He should still retain the right of immediate suspension and of dismissal from his department if the personnel department cannot persuade him to reinstate the man.

A useful procedure here is to allow no employee to receive his final pay check until he has interviewed the personnel department and obtained its signature for his discharge. By this means conference with a personnel executive who will look into the situation is assured. More often than not, it is possible to put the worker in some other department, if his offense has not been of such a character as to require complete dismissal.

[1] Webb, Sidney, "The Works Manager Today," p. 30.

Both of the above methods, however, imply that management alone is deciding upon the rightness of the discharge. The same arguments which have force regarding the sound handling of shop rules and grievances would seem to have force in the handling of dismissal cases. For after all, discharge usually results from a breaking of shop rules; and often it is felt by the worker to be a grievance which he has against the company.

A third method is, therefore, to have a joint committee pass on the discharge, in case the personnel department has found it impossible to revoke the decision of the foreman and the discharged worker desires to have his case reviewed. It is assumed here that there has already been prior agreement between management and men upon proper causes for discharge; but it is also assumed that on matters of fact and interpretation the discharged employee should be allowed the benefit of a hearing and even of appeal.

In other words a first principle of standard practice on discharge is:

Establish in joint conference those causes of discharge which all parties agree it is equitable to enforce. These causes should preferably be few and specific. It is, therefore, desirable to define in advance of the offense, "wilful disobedience," "negligence," "incompetence," and "misconduct." If it is felt by all that breach of certain rules about attendance, safety practice, health measures, personal morality, or some other aspect of shop conduct should be held as cause for irrevocable dismissal (assuming that the facts are fully established), it will be less difficult to get the discharged worker to recognize the justice in the handling of his case.

Some companies in instituting shop committees and employees' associations have brought before the workers a finished plan of procedure with a number of causes of discharge (in one case as high as twenty-five) already specified—and acceptance of the plan meant acceptance of all those causes as valid. A far better way is to provide in the constitution of the shop committee for subsequent joint agreement in committee on valid causes for absolute discharge—with a referendum of all the workers upon the committee's recommendations.

Where a collective agreement with a labor union is in force, it will usually provide some joint machinery for consideration of discharge and also in most cases will state certain causes which are

recognized as absolute. An interesting example of how this problem is met in order to guard the interests of both sides is seen in agreement in one of the garment industries where the right to discharge had been in violent dispute. The contract provides that during the first two weeks of employment every worker shall be considered as on a "probationary period, and there shall be no review of the discharge of any worker during said period."[1] In the event of discharge after said probationary period, the discharged worker shall be entitled to a review by representatives of the organized employers and organized workers, and failing agreement by them, by an impartial outsider. If the discharge is sustained no further action is taken. If it is not, several alternatives are open, which depend in part upon the length of service of the discharged, but include reinstatement or a dismissal wage.[2] The important thing to note, however, is that the right to discharge is definitely restricted in the interests of fair play and of a decision free from heat and personal bias.

A fourth method of handling discharge is to turn its administration over entirely to a committee of workers. We know of less than a dozen companies which use this method, but apparently they regard it as successful in practice. One careful observer, confirming others' conclusions, says of this plan in a department store:

When I read the proceedings in each case, I was struck with the conscientious and scrupulous effort to be fair to the store. A number of

[1] *Monthly Labor Review*, p. 14, U. S. Bureau of Labor Statistics, June, 1919.

[2] "(1) If the discharged worker had been employed for a period of more than 2 weeks, but less than 4 months, the employer is given the option of reinstating the employee or of paying him, in lieu of reinstatement, a dismissal wage or fine. The amount of the fine is to be fixed by the chief clerks of the respective sides or by an impartial person, but is to be not less than 1 week's pay nor more than 6 weeks' pay; (2) if the discharged worker has been employed for more than 4 months, the chief clerks or the impartial person (not the employer) are to agree whether the discharged worker is to be reinstated, or a dismissal wage or fine, in lieu of reinstatement, be granted to him (the amount to be granted is not to exceed 6 weeks' pay); (3) discharged workers are to be reinstated if it is found that they have been dismissed for union activity. Appeals from discharges for alleged union activity are, however, limited to members of price committees and the union representatives of the shop." *Monthly Labor Review*, pp. 7–8, U. S. Bureau of Labor Statistics, June, 1919.

cases which, on the face of the records, seemed to me to be unfair to the discharged employee, were decided in favor of the management. Only where the employee's case was unusually strong was a reinstatement ordered.

On the whole, it seems that the best results are to be obtained in most cases with the use of the third method discussed.

In conclusion, it will be seen that suggestions for effective shop control grow out of an appreciation of the sources of true good conduct and orderly behavior in arousing the positive interests of people. The positive side of shop control is stressed in the belief that, if the management assumes its responsibilities adequately, the workers will assume theirs. Much depends on the attitude with which the management proceeds; much depends on having the organization of production so well in hand that the workers will normally tend to business; much depends on patient adherence to the training point of view.

To embark upon a procedure of shop control along the above lines will seem at first a venture requiring extraordinary faith in human nature. In reality it is not. It is rather a scientific step based on knowledge that group self-discipline is the only kind which is permanently adhered to without resentment; that responsibility is only assumed for matters as to which authority is specifically decentralized; and that responsibility is, when exercised, an exceedingly sobering and tempering influence.

The plant, store, or office, it must never be forgotten, exists to contribute to life as well as to livelihood. Hence, the objective of shop control is not an atmosphere of fear, gloom, whispering furtiveness, and straight-laced uniformity. There is room in the well-ordered shop for cheerfulness, an atmosphere of fellowship and even of gaiety, for flexibility, and individuality. In the shop, as in the community, the desirable aim is freedom through law.

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CHAPTER XVII

JOB ANALYSIS AND JOB SPECIFICATIONS

Job analysis is a scientific study and a statement of all the facts about a job which reveal its content and the modifying factors which surround it.

A full consideration of the problems surrounding the making and using of job analysis is important in the study of human relations in industry because a knowledge of the job is as vital to good management as is knowledge of the worker. The organizational problem of the relation of the personnel department to the work of job analysis is considered in the next chapter. The purpose here is to make clear the nature and content of job analysis, and to indicate the several different uses to which it is being put. It is, then, necessary to consider how job analysis is administered, how it is performed, and how it is controlled. The special use to which job analysis is put in the various measured production plants will then be considered in some detail.

Uses of Job Analysis.—Experience of recent years with intensive study of the work content at individual jobs discloses five fairly distinct types of use to which the information has been put. These uses are for purposes of (1) improved selection; (2) safeguarding the health and safety of employees; (3) improving methods and processes at a job; (4) improving the training methods; and (5) defining amounts of output, quality, costs, wastage, etc. which may be looked for as standard at each job.

1. *Use for Selection.*—The attention which is now being paid to selecting workers who are adapted to, and interested in, the jobs for which they are hired has naturally resulted in careful study and statement being made about characteristics and requirements of jobs for employing purposes. Usually the information needed for this use is comparatively limited in scope, and when it is organized as a unit is usually spoken of as a *job specification.* Hence, a job specification is a subordinate derivative of a job analysis made with a view solely to use in connection with the employing process. Consideration is given at the end of this

chapter to the content of the job specification. It is interesting to note, however, that a recent study of the forms in use by a considerable number of companies indicates that the job specification form is much less utilized today than five years ago. One explanation of this, no doubt, is that the employment manager or interviewer is in most organizations today assumed as a matter of course to have accurate knowledge of the requirements of the jobs for which he hires. This knowledge has usually come from observation, interviews with foremen and workers, study of standard practice training instructions, and the like.

2. *Use for Safeguarding Health.*—The use of job analysis to detect conditions at jobs which are detrimental to the health and safety of the workers is now familiar. Study of a job from this point of view would not necessitate an assembling of all the facts required for the other uses. Especially in relation to the medical and safety work of the plant study of jobs has been shown to result in improvements and in reduction in expenditure on sickness and accident. Such study in one plant disclosed the situation that there was in one department a bronze bath operation. The fumes from this work were so noxious that the foreman had to leave for a month's vacation every 6 months in order to recover sufficient health and strength to continue work; and no worker was ever known to stay at the operation more than 3 months.

3. *Use for Improving Methods.*—The use of job analysis to improve the technique of process and method becomes, of course, almost a technical engineering function; although the analysis of jobs from the personnel point of view has frequently led to the recommendation of substantial improvements and economies. The effort made by many alert managers to find the currently correct standard practice for each operation has given no little stimulus to this phase of job analysis effort.

Use of time-study and motion-study techniques as methods of precise measurement and observation in connection with the use of job analysis to improve processes is now widely made. Neither time study nor motion study, however, remarkable as are the results which have been achieved by their use, are complete job analyses in the sense in which that term is here used. Without in any way belittling the enormous contribution which will come increasingly from the use of these two techniques of precise

measurement, it may be fairly urged that one should also have in hand for simultaneous consideration, other types of data.

4. *Use for Training Procedure.*—Job analysis not only aids in determining the best methods for carrying on a job but it should give rise to a standard practice sheet, or card, which states in readily understandable form the sequence and detail of the operations of a given job. Such a statement is indispensable to intelligent training work. It was usually one of the early derivatives of the work of job study, as it was first popularized by Frederick W. Taylor. As the "father of scientific management," he was the first to insist (in any way which commanded wide public attention) that management must know in full the content of each job if its responsibilities in connection with that job are to be fully carried out. He, of course, was viewing the problem of job study from the point of view of its relation to plant management as a whole, since he was the first to see clearly that there could be no planning, scheduling, and routing of work through a plant unless there was a reasonable degree of standardization already attained at each of the constituent jobs. Today in well-managed factories and stores it is recognized that there is little point in having competent engineering studies made of the best methods of operation unless those methods are clearly embodied in written form and made the basis of expert training for all new workers.

5. *Use for Measuring Production.*—Another vital use to which Mr. Taylor was the first to put job analysis was the study of fair amounts of work; or, to use the phrase which is widely current today, to get a basis for "measured production." The definition of a fair day's work in terms of quantity, quality, cost, waste material, etc. has now become one of the most vital of the uses to which job analysis is being put.

The value of measured production as one element in the employment contract is recognized today more widely than ever. Standards of fair amounts of production based on job analysis are in increasing use not only in plants and stores where no collective bargaining with trade unions exists, but also in certain conspicuous industries operating under such collective bargaining agreements. Indeed, so significant has the determination and use of so-called "production standards" become, and so clearly is this work tied up with the personnel activities of companies, that this procedure is extensively discussed in the next chapter.

Job Analysis Procedure.—The definition given above of job analysis supplies no concrete picture of the detailed content and subject matter of the job analysis. There is required for the study of a job, if it is to be truly scientific, a systematic, exhaustive, orderly, and approximately standardized technique of procedure. Already some work has been done along this line, but much remains to be done. Remarkable progress, however, has been made with the standardization of procedure in time study and in motion study.[1]

The actual work of job study would be undertaken by a trained job analyst who utilizes every method of precise observation and measurement to which he can get access within the limits of his appropriation. He will have access, of course, to all the statistical data about a job and all such information should be secured so far as possible in advance of actual study in the shop. The introduction of the analyst to the work place and to the workers whose operations he is to study and report upon constitutes a crucial point in the procedure. Experience has shown that the introduction of the job analyst may best take place only when the purpose of his work and something about his methods have been described *in advance* both to foremen and to the workers affected, and their assent secured to the study which is about to be made.

In the past, the resistance to scientific job-analysis work encountered by engineers has been due primarily to the suspicion and mistrust of foremen and workers who were not informed in advance of the reasons for and nature of the work of the analysts. Much depends also upon the personality of the analyst and upon the type of organized joint relationship which exists between the management and the employees in the particular company. Why some specific provision should be made for organized joint relation between managers and men, if the job analysis work is to be successfully carried on, is discussed in the next chapter.

The Job Analyst.—In large plants there is frequently, as a division of the production or personnel department, a research bureau, and the members of this bureau will be the job analysts, time-study experts, efficiency experts, etc.

[1] An excellent statement on the use of time-study methods in relation to job analysis is available in LICHTNER, W. O., "Time Study and Job Analysis," New York, 1921. The books of the Gilbreths listed in the Selected References at the end of the next chapter give a picture of the technique of motion study.

The job analyst himself should be a technician who combines the qualities of human insight, scientific temper, and a sense of mechanical ingenuity. He will know in detail all the topics which his study must cover; and will utilize every means—interviews with staff experts, foremen, and workers, observation, study of records, use of a time-study expert, etc.—to get the necessary data. The work is thus peculiarly exacting in the type of person required, for he should combine an agreeable personality with a ready understanding, tact, patience, and ability to put his findings clearly into writing. It is highly important that this expert qualify fully on the side of ability to get along with people, ability to see their point of view and put himself in their place. His reception will be cordial in proportion as he adopts a *learning* attitude, is receptive and a good listener. It is only fair to himself that he indicate to foremen and workers that at the job in question they and not he are the experts. After as long-continued study as is necessary to get accurate, inclusive, and convincing data (this may mean weeks and months at certain jobs), he should put his analysis *into writing*. Gaps in knowledge are never so evident as when data is fully written out under a topical arrangement. Continually throughout his work, after initial deductions are made, he will save himself trouble and misunderstanding if he goes over his findings with foremen and workers before presenting the completed data to the committee on job analysis. The ground covered and the subject matter of his report are considered in discussing the content of a job analysis.

Assuming, then, that a properly qualified job analyst is chosen, and that his presence in the shop is fully understood and approved by the workers, what will he study?

Content of the Job Analysis.—The subjects to be treated in the job analysis may conveniently be grouped as follows:

A. The job itself.
B. Qualifications necessary in the worker.
C. Standard practice instructions.
D. Effects of the job on the worker.
E. Relation of the job to the organization.

Without attempting to offer anything like an exhaustive list of questions on each of these general topics it may be useful to suggest in a general way the special topics to be studied.

A. The Job Itself.—Under this heading the following subdivisions may be made usefully:

1. *General Description.*—This should be a brief word picture of the job as a whole and its relation to the other processes. It is desirable to have this accompanied by photographs of the job in operation.

2. *Machinery.*—The machinery at the job should be described and the necessary questions answered as to how it is maintained, etc.

3. *Tools and Equipment.*—It is necessary to know all tools and special equipment (such as boots, aprons, goggles, etc.) used at the job; also how these are provided and maintained.

4. *Materials.*—Especially important is it to determine whether materials are: (*a*) in the right place; (*b*) in the right condition; (*c*) at the right time; and (*d*) in the right quantity; and whether (*e*) they are properly removed.

5. *Motions.*—What are the motions? Are they necessary? Are they the best? In order to answer these questions with scientific accuracy, it may be necessary in some cases to have access to the kind of apparatus devised by F. B. Gilbreth.[1]

6. *Time.*—Under this head should be stated all the facts about hours and working periods (discussed in Chap. VII); also the results of actual elementary time studies with the stop-watch; analysis of the time allowances for rest, delays, use of toilets, etc.

In this section will also be included the data on which the production standard will usually be based. That is to say, on a basis of the time studies the job analyst would presumably make recommendations as to the normal or average time to be taken in doing a piece of work, and the number of operations or units to be done in a given length of time, *e.g.*, hour, day, or week, as the case may be. He would usually also recommend a maximum amount of output beyond which the best worker would not be allowed to go, and a minimum amount of output below which the poorest worker (once the period of training was passed) would not be allowed to fall.

It should be realized by all concerned that these standards of output in terms of the time element are based on the going procedure of the plant at the time of study. This entails a degree of *prior* standardization, the importance of which cannot be too greatly emphasized. Such standards are valid over a period of

[1] See his "Motion Study."

time only when the following factors may be counted upon as constant and reliable: material, machinery, plant transportation, plant working conditions, etc. At any given time a standard indicates the potentialities of the going enterprise. These standards are therefore necessarily subject to change whenever there has been any modification in any of the surrounding contributory elements or conditions. In short, this section of the report will give the basis for the determination of fair amounts of work, standards of quality, cost, waste material, etc.

7. *Records.*—It is important to know what records there are regarding the job—records of quantity and quality of output, amounts of waste, seconds and rejects, unit costs, machine hours in operation, power consumption, etc. It is further valuable, as shown in Chap. XIV, to state what access employees on the job have to these records, and in what ways they could be so compiled as to increase the worker's interest.

8. *Pay.*—The hourly or piece rate, the weekly wages, and the annual earnings should be stated; also all factors which enter into determination of wages, such as attendance, spoilage, fines, length of service, age of worker, cost of living, etc.

B. Qualifications Necessary in the Worker.—This section should include a statement of the general and particular mental and physical characteristics and special abilities which the job calls for.

C. Standard Practice Instructions.—These instructions, once they have been passed upon by the production organization, are usually incorporated into printed manuals or blueprint sheets where they are thus conveniently available for instruction purposes and for use by men at the respective jobs. These instructions comprise a clear, chronological statement of the activities, methods, and other specifications required in carrying out a job.

D. Effects of the Job on the Worker.—This is a statement of the physiological, psychological, and moral effects of the work on the worker in so far as they are discoverable from records, observation, personal inquiry, etc.

Accident and sickness records, records of periodic physical examinations of workers at the job, records showing distribution in quantity of production through the day and week, labor turnover records for the job, length of service records, absence and lateness records; all these will tell something of the effect of the work.

E. Relation of the Job to the Organization.—In this section the job analyst will consider the foreman's connection with the job, the coordination of the flow of work, the reflection of general policies, such as sales and finance, upon the job, the general working conditions and service equipment, and any other related factors.

Benefits of Job Analysis. *To Employers.*—Experience shows that numerous benefits accrue from the use of job analysis both to the management and to the workers. The work of job standardization, entailing as it does an improved coordination of the whole enterprise in terms of planning, scheduling, routing, and operating, is an invaluable aid to fundamental operating efficiency. The emphasis which job analysis puts upon studying to discover new methods has yielded great benefits in labor saving and other devices. Job analysis almost inevitably lays bare confusions in responsibility and authority, and enables a much more clear-cut division of responsibility to take place. The benefits of a standard practice sheet and of concrete information on which to base the selection of new employees are apparent. Knowledge of the amounts of output, actual and possible, is the peculiarly great benefit of this type of research, as it enables facts to be introduced into the discussion of the problem of a fair day's work which has heretofore been settled on a basis of the claims and counter-claims of managers and men.

Benefits to Workers.—The benefit of having available, for use in making the labor contract, definite knowledge about fair amounts of work, under proper conditions, should accrue to the workers no less than to the managers. The conditions under which the workers may most fully share in this benefit are discussed in the next chapter in connection with the description of the actual working out in practice of measured production plans.

It is also more satisfactory, from the employee's standpoint, to have the job content definitely established and the other contributing factors standardized and provided for. In shops where the flow of material, the maintenance of machinery, the provision of tools, etc. are not systematically taken care of, it becomes impossible for the worker to do his own job satisfactorily. Job analysis, in establishing definitely the responsibility of each functionary in the shop, makes it possible for each individual to carry on his work with a minimum of friction and error.

Public Benefits.—There would be a definite benefit also from the point of view of the public if something could be done with

the application of the job-analysis idea in the public utility industries where the importance of accurate public knowledge about working terms and conditions has proved to be one of the ways of preventing the occurrence of strikes and the continuance of abuses of any sort. The absence of definite knowledge about job content in industrial disputes in these industries has thus far made the formation of intelligent public opinion exceedingly difficult. Considerable progress has already been made along these lines within the civil service itself, in connection with state, federal, and municipal employees.

Job Specifications.—The principal derivative from job analysis which it is useful to discuss further is the job specification. Our discussion of selection assumed that this specification was in the hands of the interviewer, and obviously it is important to consider what information the interviewer needs in order to make his work most successful. The items which experience has shown are of value on the job specification card are listed below; and for any one job specification a selection from these items could readily provide the necessary data.

A. *Qualifications Necessary in Worker:*

1. Physical Qualifications:

Age	Sensitiveness of hands
Height	Hearing
Sex	Sight
Length of arms and legs	Cleanliness
Size of hands and fingers	Part of body most used.

2. Mental Qualifications:

Education

Previous experience required

Ability to:

Speak English	Read to scale
Read English	Use gage
Write neatly	Use micrometer
Calculate	Set up work.
Read blueprints	

Type of mind:

Mental	Manual
Settled	Roving
Indoor	Outdoor
Directive	Dependent
Large dimension worker	Small dimension worker
Adaptable personality	Self-centered personality
Deliberate	Impulsive
Dynamic	Static.

B. *Nature of Work:*

Name of job	Quick
Name of machine	Slow
Name of foreman	Rough
Heavy	Finish
Medium	Coarse
Light	Fine
Bench	Exacting
Bench machine	Repetitive
Trucking	Varied.
Accident hazard	
Location of job	

C. *Conditions of Work:*

Standing	Greasy
Sitting	Humid
Walking	Hot
Stooping	Cold
Clean	Fumes
Dirty	Acids
Wet	Permanent
Dusty	Temporary
Odorous	Overtime.

D. *Length of Time to Learn.*

E. *Rapidity of Advancement and Chance for Promotion.*

F. *Terms of Employment:*

Starting rate
Regular rate: piece work or day work
Average weekly earnings
Hours per day
Hours per week
Expected amounts of work.

G. *Methods of Measuring Individual Progress at the Job.*

The work of drawing up the job specification is usually undertaken by the employment manager or interviewer, and it is important that he check up his finished statement with the foreman and the workers at the job in question. It will be useful also for the employment office to have this information in such form that workers who are anxious to learn about the qualifications of a job to which they aspire can find it readily available.

For purposes of presentation to the worker, the check-up of these items should constitute an understatement of the job's possibilities rather than the reverse.

The content of the specification itself can usefully become subject for the consideration of the job-analysis committee, although once that committee has approved the finished analysis

there will be few points in the specification not already previously agreed to. The benefit of this conference will be rather the indirect educational one of having the workers at each job realize that there exists a defined body of standards for admission to that job, and it will be helpful for ambitious workers to be able to learn the necessary qualifications for jobs to which they aspire and for which they desire to equip themselves.

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CHAPTER XVIII

THE SUPERVISION AND CONTROL OF JOB ANALYSIS

The work of job analysis should in some way be shared by the personnel department for two main reasons: First, since job analysis necessarily leads to changes in process, to new standardization and training procedure, someone interested in the personnel aspects of these problems should share in administering them. Second, since determination of fair amounts of work constitutes a decision upon one of the most important items in the labor contract, whoever shares in the responsibility for deciding upon the other terms of employment should have a voice in this matter; and this means, of course, the personnel executive.

In practice, the actual engineering work of job analysis is in many cases assigned to a staff department or bureau responsible to the general manager; and the result of this method of handling this work appears to be reasonably satisfactory. Where this plan is followed, the personnel department can then function by being represented on the supervisory committee, which makes use of the fact findings and passes upon them before they are actually given administrative effect. It cannot be too strongly urged, however, that the closer the personnel executive can be to the whole conduct of the job-analysis work, the better it will be. This applies with equal force to the actual carrying on of the analysis at the work places, as well as to decisions regarding the uses to be made of the facts.

This point deserves even more explicit statement, because job-analysis work is today being viewed in well-managed plants as that point at which the liaison between technical and personnel direction is most fundamentally established. The personnel executive is often in danger of being considered only an extraneous appendage of management, unless he functions at this point. There are no personnel problems which exist separate and distinct from problems of management. Personnel work either does or does not facilitate the handling of the executive task. Executive work in the field of production has two con-

stantly interrelating aspects—the aspect of technique, plant, and process, and the aspect of the application of human energy to the plant and process. Job analysis affects both aspects in a vital way; thus, it becomes one of the most practical activities at which personnel work may justify itself as economically worth while in the organization.

Indeed, the personnel department, which understands fully all the values that can be brought out of this analytical work, is in a position to make itself solid with the organization in a remarkable and permanent way. For there is no question but that the economies and the increased output, which can be effected with the application of job analysis and the resulting measured production, can in most cases be conspicuous.

Relation of the Workers to Job Analysis.—The interest of the workers themselves in job analysis arises in relation to the making of the study and to the adoption of the recommendations of the analyst as to standard practice, amounts of work, etc. How that interest should express itself is a real problem, to which much attention has been given in recent years; and the experience has led unequivocally in one direction, even though the form of organization in which it is embodied in practice is most diverse. *It has led managers to see the necessity of the employees being an active party to the work both of carrying on the study and of utilizing its results.* The importance of this conclusion should be fully appreciated.

Obviously, job analysis might be used to the workers' detriment; might be used as a basis for more systematic exploitation; might be used to increase the insecurity and monotony of their work.

Workers have always tended to resent attempts to deprive them of their monopoly of craft knowledge by putting it into writing, or modifying operations in the interest of more rapid training or performance. They have feared and opposed studies of output because of the familiar experience of speeding up and rate-cutting. They have feared studies which would lead to labor-saving innovations because frequently this has resulted in unemployment for some of their number. Job analysis made by management and in the exclusive interest of management they fear; and they are justified in fearing it. But job analysis is *not* of itself a device of exploitation. It is rather an instrument of precision for the gaining of exact knowledge.

Like any other instrument, it may be abused. Hence, *the fullest social benefit will come out of its use only when there is joint control by workers and managers both in the making of the analysis and in its application.* Used jointly as a basis for inquiry and as a basis for adjustment of differences over amounts of work and pay, job analysis can bring knowledge and insight into play where prejudice and opinion have heretofore dominated. Therefore, whenever in this volume the crucial importance of job analysis is urged, it should be distinctly understood that *job analysis under joint control* is meant. This fact also supplies an additional reason why the personnel department should participate in this work. Job analysis stands at the vital crossroads where technical and personnel facts meet and interpenetrate.

This being so, the logical place for employee cooperation and group action to take place *is at this crossroads.* If the management wants interest in work, if it is dissatisfied with quality, if it feels cheated on the quantity of work done—it has now become clear that *the place to attack these problems is at the job itself where knowledge and intelligence can offer the basis for common discussion, agreement, and joint action.*

In many plants where shop committees already function, they offer the logical group with which to take up these matters. In fact, the shop committee that is really on its job will find that it will sooner or later have to concern itself with job study. When a company has reached the point where it realizes the necessity of job analysis to bring its production organization up to concert pitch or to keep it there, the time has come when the manual workers should be called upon to cooperate in a definite and informed way; and the carrying on of the job analyses and the applying of their findings form the sensible and invaluable subjects upon which that cooperation should occur. It is only as employee organizations interest themselves in job analysis and as progressive managers take the workers into camp on these problems, that there exists any organic unity in the production mechanism. There is much loose talk about cooperation in industry, but there is one kind of cooperation which is essential—the cooperation of managers and manual workers to get out an agreed amount of product of an agreed quality at an agreed cost within an agreed time. There may be friction, delay, divergence, controversy over *what is to be agreed;* but once that agreement

is reached, and as soon as it is reached, ungrudging cooperation is indispensable to economical operation.

There are, in short, a number of cogent reasons for the participation of employees in making and utilizing job analysis:

First, the workers have to be informed that such study is contemplated and that it is to be put to certain uses. As already pointed out, suspicion will be at once aroused if they are not taken honestly and completely into the management's confidence from the start. This can be naturally and helpfully done only in a meeting with those at the job, at which the whole implication of job analysis is made clear to them and they are then asked to select representatives to consider the study further.

Second, they have information about the job which no one else has, and there is no way to get this short of having them participate definitely in the study.

Third, the workers' interest is aroused by the new point of view and new problems to which job analysis calls attention. *The job analysis conferences should be one of the most interest-provoking occurrences in the entire operation of the organization.*

Fourth, workers will agree to adopt a standard sequence of operations only as they are convinced and agree that the standard way is the best way for them to do the job.

Fifth, workers will agree to the amount decided upon as a fair day's work only as they have a hand in determining it. Experts can compile the most convincing figures, but until the workers are convinced and agree to do certain amounts of work, production will fall below management expectations. The fact is that within limits it is the workers who determine the amount of output anyway, unless some definite study is made and standards set. Managements may think the output less than a fair return for the day's pay; workers may think their output more than they are getting paid for. Frequently, that is the situation, and it exhibits the two parties at complete cross-purposes, with the result that the amount which the rank and file tacitly agree among themselves to perform as a day's work becomes the normal output.

What is here proposed is in reality a simple and common-sense procedure; yet it has taken years to get the idea tried in industry and it gains headway slowly—the idea, namely, that *this negotiation about fair amounts of work be deliberately organized under some joint control of managers and employees on a basis of the facts provided by job analyses.*

When both sides know, and know that both sides know, what men of different degrees of competence *can* fairly do at a job in a day or week, the effort to agree as to how much they *will* do is found to be a relatively easy undertaking.

Indeed, one of the most important of the next steps ahead in personnel relations is this extension of the field of explicit negotiation beyond the subject of pay to the subject of work—its amount, quality, and cost. It is one of the standing anomalies of the present labor contract that it usually leaves completely undefined the amount of work expected in return for an agreed hourly or weekly rate of pay.

The objection may be offered that if the amount of work is to be bargained about openly, there is no value in an extensive study of the facts, since the determining factor will be the relative bargaining power of the groups involved. This objection loses sight of the fact that negotiation may be something better than mere haggling. The experience of the few industries which have tried the plan of negotiation about production is that the more facts there are available, the narrower becomes the area of conflict. In actual affairs it is soon discovered that "a fair day's work" is not an absolute fact. There are, consequently, degrees of intelligence in bargaining, degrees of wisdom in claims and counter-claims, degrees of expediency in demands. Under such conditions, job analysis is not only valuable—it is becoming increasingly indispensable.

Sixth and finally, because the fair day's work is not an absolute fact, because other than objective and measurable factors enter into the question, because differing opinions on certain points will prove useful, the opinions of those most directly involved *i.e.*, the workers, are of genuine relevance and utility.

Examples of Actual Problems.—Before going on to discuss in detail the methods used to install measured production plans, it will be valuable to cite several concrete examples of the way in which this whole problem is typically confronted. With these in view, discussion of the existing method of job study and control of its results may be more intelligent.

In one tannery the girls on week work at a certain operation finished seventy-five dozen skins a day. The management was confident that this was too little and, after consulting with the girls and assuring them of earnings at least equal to their week rates, changed the job to piece work. At once the output rose to

one hundred dozen a day and has remained at that average ever since, apparently without any ill effects on the health of the girls.

At another factory a policy of limitation of output was enforced by their leaders on one hundred and fifty men by collecting the pay envelopes of each worker to assure that no man earned over $4.75 per day. Eventually, conditions changed; restrictions were removed from the amount of work that a man could do in a day; and presently thirty men were turning out the entire amount and earning from eight to nine dollars a day.

In American shipyards early in the war, the number of rivets driven per day was often considered low by employers, although there were clearly many contributing factors for which they were themselves responsible. Nevertheless, the testimony is widespread that when the Shipbuilding Labor Adjustment Board announced that it would allow no cutting of piece rates during the war, the output frequently increased 50 and even 75 per cent. In Melbourne, Australia, a local paper recites that

> . . . an ordinary day's work for a riveter, as work is done at other yards, is 295 rivets. The Cockatoo Island riveters fell to 75. When the manager remonstrated with them the work per man increased on an average two and a half rivets per day.[1]

The problem of defining the day's work presents itself acutely in the garment trades. In the manufacture of men's and women's clothing, for example, it has been customary for certain operations to be done on a piece-work basis. The hourly rate is fixed by a collective bargain. The difficulty, then, is to convert the hourly rate into a piece rate which shall be fair to both sides, and give a weekly wage approximating that secured by multiplying the hourly rate by the number of hours worked per week. If the employer undertakes a test to show how long the operation takes, the temptation is to set a fast pace which could not be regularly maintained; and if the employees make the test, the tendency is for the operations to be done slowly so that the fast workers can make good money. This problem occasions endless controversy, ill will, and unfairness.

Examples of this sort, which could be multiplied by the score, indicate how valuable it can be both to managers and workers to have a technique of study by means of which fair amounts of work may be arrived at on some other basis than haggling. The util-

[1] *Melbourne Argus*, Feb. 13, 1919.

izing of job study for this purpose is not new, since to a considerable extent its technique was applied, as already said, in the work of Frederick W. Taylor. Unfortunately, however, the work of "task setting," as it was then called, did not meet with great favor at the hands of employees; and for this and other reasons, it did not come to be used in industry as rapidly as the intrinsic soundness of the idea might have led one to expect.

Without attempting here to trace a long and interesting history, it may be said fairly that the reason for the slowness with which this phase of scientific management was adopted was that the technique used and the standards imposed were at the outset determined quite arbitrarily by management and for management's exclusive purposes. The last ten years have witnessed a remarkable change in this situation, so that it is now true that the use of job analysis to help define fair amounts of work is successful and is being extended *principally in those corporations where by some machinery or other the employees are made jointly responsible for the application of the analyses.* Today the whole procedure of measured production and the employment of production standards is gaining real headway under two typical conditions. One of these is where shop committees are in operation, and the other is where collective bargaining with trade unions is in effect.

Typical Machinery of Control.—In plants where some form of employee representation is in operation, it has come about almost inevitably that the work of job study has increasingly functioned in direct relation with the employee organization. In a number of plants, the expert work of job analysis, including the setting of production standards after time studies have been made, has been undertaken (1) with the personnel executive definitely included on the supervisory committee, and (2) with representatives of the workers included on this committee.

One corporation with a number of plants has reported:

> Plant committees, consisting usually of the plant superintendent, auditor, head of planning department, employment manager, chief timekeeper and representatives of the workers' council, supervise the job analyses at each plant on forms prepared by the general committee.[1]

In some plants, although the employees exercise no direct authority in the conduct of the analysis or the initial statement of production standards, it is understood that should they find that

[1] Young, Arthur, H., "Occupational Rating Plan of the International Harvester Company," *Industrial Management*, May 19, 1923.

the standards as put into effect are for any reason unfair or impractical, they are expected to report to their departmental delegate on the shop committee and have the matter taken up with a view to reconsideration of the standards.

It may be that in the course of time in any given company, after the idea of job study and defined production has gained intelligent acceptance and the job analysts have become experienced in making the studies and recommending fair production standards, the use of employees to share in the supervisory work will be unnecessary; but, at least during the early years of the introduction of job-analysis work, it is a mistake to omit the explicit recognition of the employees on the supervisory committe which has this work in charge. The educational benefits of this procedure to the employees involved is reason enough for adopting this plan, even if no other arguments were valid.

Recent years have witnessed the adoption of collective bargains with labor unions, especially in the men's and women's clothing industries but also in scattered cases in other industries, in which definite provision has been made for the joint determination of fair amounts of work. These collective agreements have confined themselves to making provision for creating the joint machinery and procedure to be employed, which has worked out subsequently with varying degrees of success in the different cases. In a number of these instances there has been created the position of "impartial chairman." Its incumbent must be a combination of judge and administrator to interpret the agreement, and becomes the court of last appeal for controversies about production standards which may arise. The actual work of job study in the individual shops of the industry is then undertaken by technical experts. In certain cases these have been hired jointly by the two sides, and in certain other cases, by the employers; but in both cases, the analysts' recommendations have been subject to review and alteration sometimes before and sometimes after they are actually put into effect.

A comparable development in the railroad repair shops of one or two railroads well illustrates the soundness of the principle here invoked and its adaptability to varied conditions. The Baltimore & Ohio Railroad in its repair shops was the first railroad company to enter into a definite agreement with certain unions looking to improved efficiency in production methods, closer cooperation in cultivating shop morale, and a sharing of

the financial results of the economies effected. Without the possibility of adopting measured production in the restricted sense (because the work is repair jobs no two of which are twice the same), the managers and men have proved that joint conference on production matters can stimulate interest greatly and cut repair costs conspicuously. In fact, so successful has this method of joint control shown itself that its extension to other railroads is going forward promisingly.

It will be clear from this brief characterization of the different plans of organization and control under which job analysis is employed that the vital element is not one special type of supervisory machinery; but is rather a recognition of the importance of the general principle that without some form of joint control which is felt by all to be genuine, these plans will not succeed to best advantage.

Production Standards Defined.—The phrase "production standards" requires explicit definition. In this book a production standard means the average amount of work which it is agreed between managers and men is to be done by the average worker at a defined job or occupation. This standard may be stated in terms of the amount of work done in a week, a day, or an hour, depending upon the unit of measurement in use. The standards may also be in terms not only of quantity, but also a number of other variables which may be combined with it; namely, quality, cost, wastage, attendance, length of employment, etc. In practice, there is often defined and stated a *minimum* amount of work on a job which will be expected from any except a learner; and there is defined a *maximum* amount of work at the jobs in question. This means that the production standard itself is the normal amount of work expected of the average worker.

Introducing Production Standards.—There are important details in which the procedure for the study of repetitive jobs differs from that at jobs which must necessarily be on a day-work basis; and these differences will be noted in the subsequent discussion. It is necessary to observe this distinction throughout the discussion because the correlated method of payment which can typically be used at repetitive work must necessarily differ from that to be employed in day work.

The first essential is to agree upon a nomenclature for all the jobs in an organization. When all the jobs are thus clearly

named, the second step is to list them in order of their relative value in the organization. This can be done only after the following information is available for each job:

The amount of general education necessary.
Required age of the worker.
Required sex of the worker.
Amount of previous industrial experience necessary.
Special craft and job training necessary.
General intellectual ability required.
Disagreeableness of the work (in point of surrounding conditions, posture, etc.).
Promotional opportunities which the job offers.[1]

While in individual cases it might seem difficult to secure a satisfactory listing of jobs in such a hierarchy of relative value, in practice this has not proved to be a serious problem.

The third step is to group all the jobs thus listed into a number of classes. How many classes there should be in any given organization will depend upon the number of factors, but usually there would be not less than four or five, and there might in some cases be as many as fifteen. This grouping is made largely for the further simplification of the payment problem since the plan is to state a minimum and maximum hourly or daily wage rate for workers in each class. It should be understood, of course, that this will bring into the same class jobs of a widely different character. The element which they have in common is their relative value to the organization.[2]

[1] The work done in this connection at the Sperry Gyroscope Company is of great interest. The fifteen factors used by them are: "Time usually required to become highly skilled in occupation; time usually required for a skilled man to adapt himself to work; scarcity of labor supply; difficulty for an employee to secure similar work elsewhere; educational requirements; prevailing rate of pay; degree of skill and accuracy required; necessity of constantly facing new problems—intelligence; cost of errors—unintentional, spoiled work, etc.; dependence that must be placed upon employee's integrity; dirtiness of working conditions; exposure to health hazards; exposure to accident hazards; physical effort required; monotony of work." See LOTT, MERRILL R., Personnel Superintendent, The Sperry Gyroscope Company, "Wage Scales with a Reason," in *Management and Administration*, p. 453, May, 1925.

[2] The testimony of the Eastman Kodak Company in this connection is interesting: "It was soon found that all operations could be classified and we then had six classes of jobs, each class having its minimum standard

The fourth step will be the actual deriving of production standards. As suggested above, it would be true at non-repetitive work that this statement of standards might not be in terms of amounts of work except to a relatively slight extent.

The determining of a production standard requires in the great majority of cases the use of elementary time studies. It is impossible to give full consideration here to all the technical difficulties which will be met in such study; but experience shows that one or two points should be emphasized. There is, first, the question of the unit of time in which the observation is to be made and stated. Shall it be an hour, a day, or a week, or an even longer period? Generally speaking, the hourly unit is far too short as a basis for study and for setting a rate of output as well. It does not make proper allowance for fluctuations in output through the day; it keeps a too constant drive before the mind of each worker, who tends always to be asking himself: "Am I getting this hour's stint out on time?" Where such worry exists, real efficiency is reduced. If a day of a stipulated number of hours is used as the unit, at some jobs that will be found satisfactory; *but in many cases it would be valuable if output were measured and agreed upon in terms of the individual's or gang's week's work.* That gives a unit of measurement in which the worker has time to turn around. If one morning's work goes slowly, the next morning's may go better after the worker has had a full night's sleep. If it is hot for two days, the end of the week may be cooler, etc. The variables which influence the amount of work which it is possible to do tend to cancel out over a period of a week as they do not over a shorter working period.[1]

Where the work is of repetitive character and is to be paid for on a piece-price basis, the production standard will usually be reduced to such terms that it can be stated in terms of the amount

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rating. For example, it was soon evident that many jobs had the same requirements, and operation A, instead of representing a single operation, indicated a group of ten or fifteen jobs scattered throughout the plant. The same thing applied to operations B, C, D, E, and F." See MANN, ARTHUR L., Supervisor of Training, Eastman Kodak Company, Rochester, N. Y., "Placement of Operators Through Tests," in *Personnel Administration*, p. 14, June, 1922.

[1] See HUNTINGTON, E., "Civilization and Climate," Chaps. IV and VI. Even this statement, however, is subject to the important reservation that careful studies show at some jobs as much as 15 per cent variation in the amount of work which it is possible to do in summer and winter.

of work to be done in an hour; but this can always be arrived at quickly, even if the study has been made in terms of a week's output, by dividing the week's amount by the number of hours in the week.

One way to handle this conveniently is by the use of a "point" system in which the amount of work to be done in a minute (as disclosed by the production standard) is given the value of one point. An average worker just satisfying the production standard would, in an 8-hour day, earn 480 points, and each 60 points earned would have the cash value of the then effective hourly rate of pay for work in that class. The incentive element is introduced, of course, by allowing and urging the worker to earn as many points as he can above the standard; and thus in turn be compensated for the number of points earned.

The obvious merit of using the point system is that changes in hourly rates of pay can take place without altering the number of points required at a job. The number of points would change only as the character and time elements of the job itself should be changed.

The differences between the procedure here advocated and the old-fashioned piecework method are that (1) here the amount of work to be done on which the pay rate is subsequently paid is not decided by bargaining alone, but primarily with reference to amounts of work shown to be reasonable by time study and job analysis; (2) this procedure assumes that on a basis of scientific study there has been determined (*a*) a fair average amount of work, *i.e.*, the production standard; (*b*) a minimum output below which it does not pay to keep the worker at the machine; and (*c*) the maximum output above which it will not be safe for the worker to go, from the health point of view; (3) the attending worker (as will be shown in Chap. XXIII) *is guaranteed his daily average rate of pay* as a minimum day's work.

Time studies should be open to joint scrutiny to assure that (*a*) all fair allowances have been made for breakdowns, use of toilets, going for drinking water, etc.; (*b*) all "freak" times have been eliminated, *i.e.*, times too high or too low; (*c*) the studies have been taken at typical machines; and (*d*) typical average workers have been selected for study and they have worked at a customary rate of speed and with the cutomary standard technique. Mr. Taylor himself has well stated the objective to be held in view in carrying on time study:

It must be distinctly understood that, in referring to the possibilities of a first-class man, the writer does not mean what he can do when on a spurt, or when he is overtaxing himself, but what a good man can keep up for a long term of years without injury to his health, and become happier and thrive under.[1]

The fifth step would then be to determine, especially at non-repetitive jobs, what elements other than quantity would figure in the rating and in the formulation of the standard of performance. What, for example, is to be considered a standard quality, and how many seconds, rejects, etc. are to be allowed? If there is a standard percentage of waste allowed, amount of power to be consumed, amount of materials to be utilized—these may also be stated as elements in the standard. Some provision for regularity of attendance might also be a factor. For at non-repetitive jobs the determination of where in his class the individual falls from week to week—that is, whether he has earned minimum, average, or high pay rates in his pay group—depends not on amounts of work, but on a combination of factors which have to be included and recorded on some type of rating plan.

The sixth step is the installation of this rating plan, especially at non-repetitive jobs. A number of companies could be cited where this whole idea is being successfully applied on the basis of a definitely established procedure for the periodic rerating of each worker. Under this plan, either at quarterly or half-yearly intervals, the total "personal history" record of each worker is examined and a decision is reached as to whether he is on the whole qualified for an increase to the next higher rank of payment in his class.

The machinery for securing these individual ratings as well as the content of the rating plans themselves is still frankly provisional and in an experimental stage. Under some plans the foreman takes full responsibility for the rating decision; under others this rating is done by a conference including the foreman, an instructor, or inspector, and a representative of the personnel department. There is also some experience with a "mutual rating" plan of employees by their fellows. In general, it is probably safe to say that the more nearly the rating plan can be

[1] Quoted by JONES, E. D., "The Administration of Industrial Enterprises," First Ed., p. 219.

administered by a group in which the workers' fellows are definitely represented, the better.

Qualities to be rated would differ from case to case, but in general a selection from the following items is often found to be a valuable index to the individual's progress:

Regularity of attendance.
Comparative length of time taken on this as compared with a comparable previous job.
Saving in the utilization of raw material.
Saving in amount of waste, or number of "seconds" produced.
Length of service.
General character of workers' attitude toward the company.
Interest in his work.
Ability to get on with his foreman and his fellows.

Conditions of Successful Use of Production Standards.—It is now possible to summarize explicitly the several conditions that must be fulfilled if production standards are to be satisfactorily introduced. They are: (1) the administration of the plan under the joint control of management and employee representatives; (2) a guarantee that wage rates shall not be cut unless the character of the job is substantially altered; (3) guarantee that there will be a regular continuance of work, or failing that, the provision of unemployment compensation; (4) publicity of production records and ratings of employees. One further element is in use in certain corporations where production standards are employed, although it cannot be said that it has thus far been shown to be an essential element. It is the provision of some plan for allowing the employees a share in the ultimate profits of the business at the end of the year. It seems logical that this demand will increase as time goes on, since if increased production is to lead to lowered costs, increased volume of business, and increased profits, employees who realize this are bound to feel that one of the necessary conditions of their greater exertion is a share in the ultimate gains.

Objections to Production Standards.—Objection has been made that the use of production standards under joint responsibility involves too much time in conference. It is said that "there will be no time left to work." There is, no doubt, an element of truth in this objection, but it is becoming clearer as the world's experience with representative institutions grows that *a part of the price of honestly representative government is the*

consumption of sufficient time in conference to enable the representatives to get at the facts, compose their differences, and decide upon a course of action. If it is said that in industry this is too high a price to pay, the answer is that without it the consent of the workers will be a reluctant consent and their interest will not be aroused. Fundamentally, human efficiency depends upon interest and consent, and job analysis under joint guidance instead of meaning merely one more committee is the *indispensable technical instrument for assuring that efficiency.* Indeed, there may be too many committees; but if there has to be a choice, the committee on job analysis is the one which the progressive plant can least afford to drop.

Another objection is that the standards of fair amounts of work which should be done should be thought of as absolute and not as relative. As one engineer has put it, the ethical obligation upon the worker is to work as hard as he can and do as much as he can during his working time. This objection ignores the practical realities of shop operation as well as the realities of employee psychology. How much work can be done in a given unit of time is not in fact an absolute amount, but one which depends upon a number of variables for which both the management and the workers are responsible. The setting of these standards by conference methods assures, for one thing, that the management will take seriously its responsibility of standardizing the attendant conditions which must be standardized if the production standards are to be possible of attainment day by day. The responsibility which this whole procedure puts upon management for the effective performance of its work is not the least of its benefits.

A third objection is the high cost entailed by the employment of job analysts, time-study experts, and clerical assistants who are admittedly required to assure the smooth operation of such a plan. The only answer to the cost objection is that although the initial outlay seems large, the ultimate return in terms of increased amounts of work per hour from most employees, together with the concomitant reduction of costs over a period of time, is usually found to offset the initial expense.

Principles Governing Use of Job Analysis.—The discussion has now reached a point where it is possible to set forth a number of principles to be observed in the effective use of job analysis:

The demand of managers and ambitious workers for recognition of differences in competence at a job in terms of output, quality, and low unit costs is a widespread and fundamentally sound demand.

To give practical effect to this demand, job analysis as here defined is necessary, but job analysis will be accepted and its results used by the workers only as they are parties to its adoption—and to the adoption of the rates of pay for the specified jobs.[1]

The findings, after acceptance by the workers at the job in question, should then be turned over to a Committee on Wage Rates, as a basis for more enlightened action on payment.

A fair day's work is not an absolute fact, but *is that amount of work in terms of quantity, quality, etc., which all parties agree, under the existing circumstances and with the available facts, to be satisfactory because reasonable, possible, and expedient.*

Conclusions.—The foregoing conception of job analysis and its use has made rapid headway in the last ten years. This is to be accounted for by the concrete and helpful character of this work once it is really understood. The factory or store which wants to work with the real stuff of a more democratic industrial method and organization will work at job analysis under joint auspices, because this will bring it face to face with the most vital, practical issues such as shop productivity and the possibility of interesting the workers in their work. Moreover, we are here at one of the two points where divergences of economic interest arise. This means we are at a point where a consideration in joint session of the divergent interests by the several groups affected becomes important.

Upon *work* and upon *pay* differences may arise between management and men; and the measure of the sound business acumen of both parties will lie in their ability to see that these two are the points at which mutual interchange should take place on as informed a basis as possible.

Job Analysis in the Civil Service.—Special reference should be made to the problem of job analysis in the public service.[2] The

[1] See Chap. XXIII, which takes up the discussion of payment methods at this point.

[2] See in this connection the interesting *Report* of the Congressional Joint Commission on Reclassification of Salaries, Mar. 12, 1920. House of Representatives, Document 686, Sixty-sixth Congress, Second Session, 1920.

fundamental principles underlying a study of civil service positions differ in no important particular from those applicable in industry; but the nature of the problem is modified by the fact that more often the important element is a *comparative* study of different jobs bearing the same or similar titles. The effort has to be, first, to classify *titles* so that they always connote approximately the same duties; second, to compare the job-content of work in different branches of the public service bearing the same title; and third, to standardize salaries in relation to titles and duties.[1]

This work of comparison is by no means absent in industry. Large corporations with a number of plants are increasingly seeing the necessity for such standardizing of titles, work, and pay, for similar jobs in different plants. These attempts cannot be satisfactory without an adequate basis of job analyses in each plant or government department.

For reasons already elaborated, these analyses should be a joint labor of experts, administrators, and workers. The public service promises, indeed, to be one of the most fruitful fields for the application of the principles laid down in this chapter; since there the problem of securing initiative, efficiency, and interest in work is peculiarly to the fore, and job analysis, conceived and executed in the representative manner here suggested, lessens the likelihood of bureaucracy. For it recovers to the individual worker a voice in the determination of the terms, methods, and conditions of his work; it ministers to his self-respect; and it minimizes the chance for the petty tyranny of small-minded executives.

The incalculable benefit of arousing an active sense of partnership in the enterprise is especially to be prized in government service, since the tendency is to a dangerous degree toward viewing governmental agencies as dispensers of sinecures. Because job analysis assumes change, the need of change, and the possibility of infinite improvement, its influence in bureaucratic

[1] See: Mayers, L., "The Federal Service," Johns Hopkins Press, 1922.

Proctor, A. W., "Principles of Public Personnel Administration," Johns Hopkins Press, 1921.

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organizations can be great; but its greatest value is assured only when the whole undertaking is jointly controlled. In this way it is not only brought into harmony with principles upon which the government of a democratic people rests; it is brought into harmony with principles of human nature from which there is no escape.

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CHAPTER XIX

THE MEASUREMENT OF LABOR TURNOVER

Labor turnover is the shifting which takes place in an organization's working force. It is the "change in the force due to men leaving . . . Every worker who leaves the employ of a given establishment for whatever reason constitutes a part in the turnover of that establishment. The study of labor turnover embraces the study of the causes and effects of every termination of employment and the means of preventing such terminations as are socially undesirable."[1]

Labor turnover is measured in terms of the ratio of those who leave their employment in a given period—usually assumed to be a year unless otherwise stated—to the average number who have been on the active payroll during the same period.

The percentage of labor turnover, in other words, is obtained by dividing the number of those leaving by the number in the total working force.

Having given these definitions categorically, it must be added that there is by no means complete agreement as to what turnover is and how it should be measured. There is a second method of considering it which centers around the idea of *replacement* and considers that turnover has occurred only when the cycle has been completed from the hiring of a worker to the hiring of his successor when he leaves. The proposal of those who advocate this method is:

> To compute the percentage of labor turnover for any period, find the total replacements for the period considered and divide by the average number on the payroll.[2]

There is undoubtedly much to be said for this method, since it indicates the success with which the needed working force is being maintained and the needed amount of production being

[1] Slichter, S. H., "The Turnover of Factory Labor," p. 1.

[2] Douglas, P. H., "Methods of Computing Labor Turnover," *Bull.*, The Taylor Society, vol. 4, No. 4, p. 20.

turned out. It assumes, however, the prior standardization of a plant's production in terms of each individual's day's work and of a standard total day's output of the plant—a group of facts which are infrequently met because the necessary degree of control over the volume of production can only begin to be obtained by scientifically managed plants. For only as this standard performance is known is there a basis of comparison between expected and actual production.

The rate of labor flux or the ebb and flow of labor, suggested by Brissenden and Frankel,[1] is a third method of computing labor mobility. It consists of the following formula:

$$R = \frac{A + S}{W}$$

in which R is the rate of labor flux, A is the number of accessions to the force, S is the number of separations from the force, and W the "number of 'fully employed-worker' labor-time units of 3000 hours put in by the work force" during the period concerned. This measure has several scientific advantages over other plans, but it has not as yet had a wide vogue. The reason for this probably is that arriving at an approximately correct figure for W in the formula requires a good deal of care in record keeping.

For the more rough and ready purposes for which corporation statistics are in the immediate future likely to be used, it seems, therefore, that the use of separations as the basis of turnover reckoning is still valuable. For separations have the advantage of fastening attention on the *individual worker who leaves;* and he, from the point of view of diagnosing a company's labor troubles, is the one in whom interest centers.

In short, labor turnover is not a thing by itself, an isolated phenomenon to be measured and discussed only in relation to a standard output. To be sure, it has a close effect upon output, but labor turnover, properly conceived, is rather a symptom than a disease; and like all symptoms it is of interest to the practical person only in so far as it points to the nature or causes of the maladjustment, and thus leads to corrective measures.

People usually quit the employ of a company because of some dissatisfaction, and the effort from the administrative point of view must be to discover the source of that dissatisfaction. If a company's figures of turnover are in terms of separations they are, therefore, in terms of dissatisfactions, provided proper allow-

[1] Brissenden, P. F. and Frankel, E. "Labor Turnover in Industry."

ance has been made in the computation for other non-personal causes.

If all the workers in a department or in a whole plant go out at once, the event is spoken of as a strike; and the board of directors at once inquires of the manager as to the reason for it and the nature of the men's demands. Indeed, the management may be severely censured for letting an interruption of work occur, but boards of directors and managers do not always so readily see that labor turnover—or the largest single part of it—is simply a strike by erosion, about which they should also be exercised. It is a gradual wearing away of the working force one at a time, due to some cause and some demand which is unvoiced in any formal way because an adequate channel of communication or adjustment is not provided. It is exactly as important to find out and meet this demand, when it is a just one, as it is in the case of a strike.

The Formula of Labor Turnover.—Reduced to its simplest terms, the formula for the determination of labor turnover would be:

$$\text{T(turnover)} = \frac{\text{S(Total separations)}}{\text{F(Average force on payroll)}}$$

As it stands, however, this formula is too simple to disclose much about the meaning of the figures of separation. Some modifications in the method of computation are essential. Hence it is urged that the figures of leaving be itemized in ways that give them significance. An initial division usefully may be made between resignations, discharges, lay-offs, and separations for health reasons. Under one of these headings each departure may be classified.

The figure F may be arrived at in several ways; but perhaps as simple a method as any is to use the total weekly payroll figure of the departments in question. If the average force for a year is sought, these fifty-two amounts may be added and divided by fifty-two to give a yearly average. If the figures represented by S are obtained in terms of a week, in order to get the standard labor turnover figure, T should be multiplied by 52; although the resulting figure will mean only that the turnover for that week was *at the rate of* such and such a per cent per year.

When, however, fifty-two consecutive actual *weekly* percentages are available, the *total* of those fifty-two will give the actual yearly turnover.

It will be desirable, for more detailed analyses, to divide each of the four major headings into several sub-headings. The following arrangement is suggested, with clear recognition of the revision that it will require as it is used in specific cases:

1. Resignations:
   - *a.* Better job
   - *b.* Dissatisfaction with wages
   - *c.* Dissatisfaction with work
   - *d.* Unable to get along with superior
   - *e.* Leaving city
   - *f.* Change of vocation.
2. Discharges:
   - *a.* Careless
   - *b.* Incompetent
   - *c.* Unreliable or irregular
   - *d.* Insubordination
   - *e.* Liquor
   - *f.* Misconduct
   - *g.* Dishonesty
   - *h.* Trouble-breeder.
3. Lay-offs:
   - *a.* Decreasing force
   - *b.* Lack of work.
4. Physical reasons:
   - *a.* Ill-health
   - *b.* Injured
   - *c.* Died.

In addition, a separate record should be kept marking each departure as avoidable or unavoidable. This distinction in many cases will be difficult to make: for instance, "unable to get along with superior," when given as a reason for quitting by a worker of conspicuous emotional instability, is an unavoidable resignation; but the fault may lie with the superior, and if so it is clearly an avoidable separation for which some remedy should immediately be devised.

Any wide agreement as to which causes for leaving are avoidable or unavoidable will undoubtedly be difficult to secure; but wide agreement is not so much needed at first as agreement of all concerned *in one plant* to keep its own figures consistently on the same basis over a period of years so that they are valid for purposes of comparison. For after all, their major purpose is to reflect from time to time the success of the management in reducing avoidable causes of dissatisfaction.

Endless refinements in the turnover figures can, of course, be made; and the literature on this subject is voluminous. For example, complications due to the permanent reduction or the permanent increase of the working force during the period in which the amount of turnover is sought have occasionally to be met. In the interest of emphasizing the main idea of analyzing the remediable causes of dissatisfaction, no further modifications in formula or in the forms for recording it are suggested.

Figures showing the gross company turnover do not, however, necessarily indicate a great deal. The more itemized and localized they may be, the more significant they become. For example, turnover records when presented by departmental divisions often show one or two departments to be the principal causes of high turnover; and when kept by rooms or machines they may even indicate that it is one particular operation or one foreman who is causing much of the trouble. Similarly the segregation of turnover by sex, by age, and by wage groups may reveal discrepancies in company procedure that will otherwise remain unsuspected.

Labor turnover figures should be compiled, in short, not to cover blank forms with figures, but to show where disaffection exists, why it exists, and how much of it may be eliminated.

There is considerable value, also, in figures which show the length of employment of leavers. If, as is often the case, the most turnover comes within the first six months of employment, it is likely to argue some deficiency in methods of selection or training. If it comes with workers of long standing, that may indicate little opportunity for advancement in wages or in kind of work. When carefully scrutinized, facts about length of employment of leavers are likely to be illuminating.

Discovering Causes of Turnover.—All this discussion assumes that the company has accurately discovered the cause of each individual's leaving. In the absence of a centralized employment office through which all leavers are required to report, the chances that the true cause will be revealed are exceedingly small. Workers usually will not or do not tell foremen or timekeepers the real reasons for their departure. Indeed, it will be hard enough for the interviewer to get a candid answer to his queries. But the chances of accurate analysis are greatly enhanced if some tactful person in the employment manager's office is

required to spend several minutes in considering in private interview with the leaver his reasons for going.

The danger here is that the interviewer will put into the leaver's mouth some reasons which the worker will immediately take up and repeat back without ever disclosing what is really on his mind. The only way to prevent this is for the employment manager to be impressed with the fact that the leavers are *ipso facto* the ones who feel most strongly about the shortcomings of some aspect of the company's labor policy; and that it is of first importance that their uncolored testimony be secured.

The Cost of Labor Turnover.—Although labor turnover is not a fact to be dealt with independently, its costs may to an approximate degree be figured separately; and a compilation of the turnover costs for a given job, department, or plant may be exceedingly useful, as providing a cogent argument for changes and improvements. Admittedly such costs cannot be arrived at with perfect accuracy, but enough of the items may be segregated or closely estimated to present a conservative statement of the losses in production and in indirect expenses due to high turnover.

There follows a list of items of cost which is illustrative if not exhaustive, as showing the charges involved in labor turnover, which are not ordinarily taken into account.

These costs may be roughly divided into overhead costs and operating costs.

Among the overhead costs there are:

1. More rapid depreciation of machinery because of ignorance or lack of skill of new workers.
2. Extra floor space and extra machines to provide against idleness of a certain amount of machinery due to shifting labor.

Operating costs may include any or all of the following:

1. Time of increased superintendence or office work, including:
   (*a*) Time spent by foremen or superintendent in discharging a worker where that is the way the vacancy occurred.
   (*b*) Time spent by foreman or other workers in training the new employee.
   (*c*) Time spent by clerks on additional payroll or other records.
2. Machine costs, covering:
   (*a*) Time machinery is idle when a new worker cannot be obtained immediately.
   (*b*) Idle machinery for temporary stoppages due to ignorance or lack of skill of new worker.
   (*c*) Repairs to machines or renewals of tools broken for the same reason.

3. Material costs, including:
   (*a*) Waste or damaged material due to ignorance or lack of skill of new worker.
   (*b*) Difficulties in subsequent processes due to poor work by new employees in previous processes.
   (*c*) Lower production while new employee is working up to his best skill.
4. Additional accident cost due to higher rate of accidents among new employees.[1]

Cautions.—Figures of labor turnover and of its costs are not, however, to be taken wholly at their face value. Conclusions from them should always be drawn with some caution, until methods of compiling them and the reasons for compiling them are known. As a general index, as a barometer of the trend and current of the company's labor atmosphere, labor turnover figures, if carefully prepared, are useful. It must be remembered that to put qualitative facts—facts about people's attitudes and desires—into quantitative measures is a process in which results have to be viewed with caution.

A situation which is sometimes met and which the figures if superficially viewed do not reveal is a rapid turnover among 15 or 20 per cent of the force, while the other workers remain employed fairly constantly. What is needed is a measure of labor stability. That measure was supplied by the United States Coal Commission, which defined it as follows:

> *Stable Force.*—The stable force is that group of individuals who were not separated from the roll during the year . . . an absence of two or more pay periods constituting a separation.[2]

The percentage of stable force is computed by dividing the number in this group by the average working force. It permits the employment manager to recognize the real magnitude of the labor turnover by noticing the proportion of the force among which it takes place. For instance, one bituminous coal mining district showed a labor turnover percentage of 198 and a stable

[1] Gregg, Richard B., "Labor Turnover Records and the Labor Problem," *Proc.* Am. Soc. Mech. Eng., Dec. 4, 1917.

[2] U. S. Coal Commission, *Report* O, "Labor Turnover in the Bituminous Coal Industry," Washington, Sept. 22, 1923; a mimeographed report. Brissenden and Frankel had previously pointed out the significance of this measure, but did not develop and define it as did the coal commission.

force percentage of 40. These figures mean that practically twice the average number of employees on all jobs left only a little more than half the jobs in the district. The labor turnover figure alone does not show the seriousness of this situation.

Account must be taken of the fact that some turnover may be a natural measure of self-defence against the monotony of certain kinds of work. A degree of shifting from one plant to another may under present conditions be a healthy and socially desirable protest against present methods of utilizing people. At any given moment in one plant, it *may* be impossible to do much to compensate for the sameness and dullness of the work, and in such a plant to attribute inefficiency to the employment office because of a high labor turnover is unfair. This is a use of figures without a sufficiently careful examination of their meaning.

There is, indeed, a real danger that managers who have installed employment departments will take it as axiomatic that the amount of turnover is a direct index of this department's efficiency. It may be—or it may not; but until the figures are carefully analyzed and compared with those of previous years and of other plants similarly situated, it is unscientific to draw this conclusion.

Remedies for Labor Turnover.—If turnover is a symptom of some maladjustment, the cure should remove the symptom. Since throughout this book the ways of securing a scientific and human working adjustment between management and men are considered, at every point remedies for the avoidable labor turnover are discussed. There is, therefore, no point in enumerating those remedies here. One outstanding remedy of recent years, however, does, deserve separate mention.

It is true that the introduction of functionalized employment offices in charge of trained executives of a superior type *has of itself tended to effect an immediate and marked reduction in the amount of labor turnover.* The fact that one office was specializing in selection and in the subsequent adjustments has almost without exception brought labor turnover within a twelve-month period from an abnormal and excessive figure to one more reasonable and normal. The evidence obtained from the figures of company after company is conclusive on this point.

The Exchange of Labor Turnover Figures between Companies. It was precisely this establishment of functionalized employment offices that made possible the valuable studies which have been

carried on in Philadelphia[1] by the Industrial Research Bureau of the Wharton School at the University of Pennsylvania.

These studies have shown that labor turnover fluctuates almost directly with the business cycle, and that comparison of labor turnover figures between companies employing similar types of workers throws important light on the causes of separations. The growth of personnel associations in large cities has made possible a more complete use of this type of record than was possible ten years ago, and after the Philadelphia studies become more widely known, this type of information will almost certainly be exchanged freely and profitably for all concerned.

A similar effort to compare figures of labor turnover, both in a local labor market and for a large number of plants which might establish a normal rate against which to compare an individual plant, has been instituted. This type of compilation should prove useful both in giving a more adequate picture of the relation of the labor market to business conditions and in indicating how one company compares with others in the size of its labor turnover percentage.[2]

Labor Loss.—Finally, mention should be made of a somewhat more elaborate method of computing all the labor losses in terms of the loss in productive hours which the plant suffers each day or week. Labor loss is conceived by Mr. Hoopingarner[3] as a combination of the following measurable factors:

1. Original failure to secure the right or standard number of employees.
2. Failure to maintain the number of employees regularly up to standard.
3. Hiring new workers to replace lost ones.
4. Poor attendance (absenteeism and tardiness).

His method will be seen to assume a standard working force and a standard flow of production. The figure of labor loss is based

[1] "A Study in Labor Mobility," *Annals* American Academy of Political and Social Science, September, 1922; and "Four Years of Labor Mobility," *Annals*, May, 1925.

[2] See in this connection the methods employed by the Brown Business Service, published by the Brown University Bureau of Business Research, in which it seems to be established that labor turnover goes up as business conditions become more favorable and *vice versa*. See also *Executive Service Bull.*, of the Metropolitan Policy Holders' Service Bureau, May, 1926, where a beginning is made in recording and comparing the turnover over a period of 7 years in sixty-two companies.

[3] HOOPINGARNER, D. L., "Labor Relations in Industry," p. 455.

on divergence from this standard caused by the factors just listed.

The formulæ and charts suggested by him are of distinct value, and may help in an effective way to show the relation of regularity in attendance and of the efforts of the working force, to output—a correlation which in some way or other it is essential to make. The only criticism, it seems, which can be offered, is not of his methods, but of the great majority of plants which could not use his methods because they have not yet determined what for them is a standard work force or a standard day's work per unit of man power. The method requires, in other words, not merely good cost accounting methods, but good planning, routing, and scheduling procedure.

Conclusion.—Discussion of labor turnover seems by common consent to occupy now a less important place than formerly in personnel circles, not because the fact of turnover is any the less real or less important than 12 years ago; but managers are coming to see turnover for what it really is—a rough gage upon the success of an organization's labor policy. As such an approximate measure it is useful; and the more refined and accurate this measurement can be, the better. The real interest of forward-looking managers today is in those elements of positive personnel procedure and in those methods of enlisting interest and cooperation which assure that gradually but inevitably the avoidable and socially undesirable turnover will decrease.

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CHAPTER XX

METHODS OF LABOR ANALYSIS

The development of special interest in personnel problems and of a technique for handling them has also given rise to a demand for a method of analyzing, reporting, and evaluating them. The need is for a standard practice of survey of the labor relations of an organization as a whole, just as we have already seen the need for such a procedure for each job. This need is now supplied by an organized method of investigation along prescribed and thorough lines, to which the name *labor audit* has been given.

Definition.—*The labor audit is a systematic and reasonably exhaustive analysis and statement of the facts and forces in an organization which affect the relations between employees and management, and between employees and their work; followed by recommendations as to ways of making the organization more socially and humanly productive and solvent.*

The word audit itself suggests the ends in view. Just as the sales audit and the financial audit render a report indicating the degree to which the organization's policy and practice in those fields are sound and solvent, so, in the field of personnel, the labor audit evaluates policies and procedures. Managers are familiar with various types of accurate current reports regarding different phases of operating activity. There are elaborate balance-of-stores records, elaborate production records, and analyses of selling conditions. But as yet most managements have not developed well-organized methods for analyzing and recording the elements which go to make up what is in many businesses one of the largest classes of expense: namely, the labor costs.

Purpose of a Labor Audit.—The purpose which a labor audit serves in an organization which has no modern personnel department will differ from its purpose where many modern practices obtain. Where personnel work is as yet largely undeveloped, the purpose may be to secure the facts to determine whether there is need of a more progressive policy. Where a progressive policy is already in operation, the audit will serve to check up its effectiveness and to indicate needed changes and improvements.

Bearing in mind the difference in the problem in these two cases, it may be said in general that an audit can be made with useful, practical results in cases where poor morale, low productivity, or high labor costs are in evidence. The audit may be used to inquire into the causes of strikes, or into reasons for the absence of corporate loyalty in working groups. It may be used to inquire into the causes of that elusive uneasiness usually spoken of as labor unrest, or to ascertain the causes of labor turnover, or some friction or specific maladjustments within the organization.

The objection has been urged that in any given situation the causes of difficulty usually may be found in one definite set of facts or records without studying exhaustively into the entire personnel problem. In any given case this *may* be true; although the ramifications of a difficulty are usually numerous. Hence, the purpose of the labor audit is to set forth items and causes *in an inclusive way and in their proper perspective.* Over-worked executives are peculiarly disposed to attribute labor difficulties to causes which are too simple. Hence, the labor audit attempts to show both the subtleties and the complexities of the causes underlying a company's labor difficulties. It attempts to "see the problem steady and see it whole."

It is valuable to have a method of checking up *all the potentially relevant items,* even though some of them may not be in active force at the moment. The highest medical talent now insists upon a comprehensive examination of the patient to be certain that all factors possibly contributing to disease have been considered. The comprehensive labor audit performs an analogous service in the managerial field.

It has, also, become a psychological truism that people see only what they have been taught to see, or have been told to look for. For this reason, if for no other, an itemized check list stimulates observational power. A schematic arrangement of topics makes it easier for the investigator to remember what he is to look for and what he has seen. In other words, a standardized outline provides a convenient peg on which to hang facts, impressions, and ideas for subsequent record.

Moreover, the use of the same topical arrangement, which becomes reasonably standardized in one's mind and records, serves to make comparison of records and facts easier and more rapid. Several plants which made labor audits several years ago,

go over the same ground annually in order to get an idea of the progress that is being made.

The value of a standard procedure for comparative purposes is particularly great for a holding corporation or the central service organization of a large corporation with scattered plants. The problem of obtaining and comparing necessary information on labor matters in its various plants has become a grave one for the large corporation. The labor audit can help materially to overcome this difficulty.

Since the purpose of the audit is to discover all the existing facts independently of anyone's opinion as to whether they exist or not, the more objective these facts can be the less is the chance that personal prejudice and bias will figure in the report of conditions. The aim is to have evidence which is beyond dispute; and the more the evidence is of a character that any impartial person must accept, the stronger will be the case for adoption of the recommendations based upon it.

Yet there are two reasons why this point should not be pressed too far. In the first place one of the most important elements in every labor situation is what the *people affected think*—the people on both sides. An investigation was made in a concern where the workers believed that the overhead cost of the planning department was excessive. It happened in this case that the proportion of this expense would not have seemed comparatively excessive to anyone familiar with the process of reorganizing methods of production control. It was the fact that the workers *thought* it was too expensive which caused difficulty.

In the second place, because of the nature of the facts covered by a labor audit, it will probably never be possible to submit all its items to accurate measurement and to statistical record. An intelligent use and interpretation of the statistical records can throw important light upon the personnel problem. But it would be absurd to believe that all the subtle influences at work in the labor situation can ever be recorded in graphs or figures. The demand is rather for a reasonably exhaustive audit check list which keeps the investigator's eyes on specific problems, most of which are objective. The practical result will then be that the investigator's opinions and conclusions are kept in close relation to a defined group of facts.

A fundamental purpose of the labor audit is to provide the management with a form of provocative report on industrial

relations. In many cases, an accumulation of all the facts about a corporation's labor conditions will supply a wealth of unanswerable arguments in behalf of needed changes. Many corporation heads who do not often see the inside of the factory need a severe jolt; and the information which the audit affords can, if it is well set forth, administer this jolt in a way that impels to remedial action.

Especially in corporations where a degree of complacency exists, either because profits have been large, competition restricted, or amicable joint relations uninterrupted, there is a tendency to "let well-enough alone." It is in such plants as these that, from the point of view of modern scientific personnel organization, there is sometimes most need for a thorough overhauling. Both production methods and ways of handling the labor problem are likely to have become archaic and inefficient.

In this connection it is useful to distinguish between facts which show that an accepted policy is not being carried out, and facts which point to the need of a change in policy. In the former case the audit often works almost automatically to bring necessary corrections. It is not an uncommon experience for the investigator to go through a plant with a superintendent and, for example, ask such a question as, "How often are the windows washed?" or "Who is in charge of shop housekeeping?" and return to the plant in a few days and find that the windows have been washed or the shop cleaned up. So many plants are defective in their follow-up and inspection work regarding personnel activities that an audit is often justified simply by reason of the deficiencies in the execution of policy which it reveals.

There are cases, however, where the facts indicate the need of a different policy, and where it is necessary to do more than make a bare statement of fact. The experience of other plants should then be pointed to, and the effort made, both in the written audit and in conferences, to direct the argument in such a way that there is no escape from the conclusion that a change in policy is necessary.

In almost every one of several audits in plants that were without personnel departments it was possible to convince those at the top that enough problems vital to sound management were being ignored, to make it a wise precaution for them to secure a special executive on labor relations. Indeed, when an audit puts on record exhaustively the vital points at which the company's

efficiency is obviously impaired if the management has no explicit personnel policy, it can become a powerful brief for the adoption of one.

Finally, it should be clear from this statement of the purposes of the labor audit that it is much more than a report of facts based on a systematized check list. The constructive part of the report is its distinctive feature. Of course, it is essential to keep facts, opinions, and recommendations clearly distinct; but assuming this is done, the recommendations are the unique asset here, and their value depends on the competence of the auditor.

Prerequisites to Making a Labor Audit.—There are at least four essential prerequisites to the making of a labor audit. There must be:

(*a*) A readiness on the part of the management, and preferably of the workers also, to put all relevant facts and records at the disposal of the investigator.

(*b*) A properly qualified auditor or investigator.

(*c*) A method of conducting the audit and of reaching all the sources of information.

(*d*) A standard, exhaustive, and logically ordered check list of items. (See the next chapter.)

It is important to understand how indispensable these prerequisites are. Regarding the first there are usually two different possible situations. Either the management calls in an outside consultant to make the study, because it believes certain benefits can be derived; or someone in the management decides that a labor audit can be profitably made by the personnel manager.

In the first case, since the company is calling in the consultant, the presumption is that it will put at his disposal such information as will make it possible for him to draw his conclusions effectively and quickly. As a part of the education of the management, the consultant may indicate that he desires no information which he cannot convince the company is relevant to its labor problem; but usually firms which are willing to have an audit made are eager to proffer all the necessary information.

The situation is somewhat modified where the consultant is sent by the central management to one of its subsidiary plants. Unless the labor auditor's presence is explained with care and tact, both by the head management and by himself, there is danger that a feeling of suspicion may arise in the minds of the local

managers. They should not be allowed to feel that their work is in any way being pried into in an unfriendly spirit. The fact that the labor auditor is present in the rôle of counselor and helper should be stressed to the maximum.

There is a strong case to be made for the occasional employment of an independent outside consultant with a fresh point of view, wide experience, and strong personality, as a father confessor. The internal politics, complacencies, and routines which almost unconsciously develop are best laid bare and brought to the point of elimination by a wholly disinterested expert. This means that the value of the consultant is in proportion to his professional courage and insight.

Usually, executives are eager to discuss their problems once they are assured a sympathetic audience. It is the experience of all consultants that many members of executive organizations want nothing so much as an opportunity to pour out their troubles. The labor auditor can be of great service to the organization in being the discreet listener to trials and tribulations. His service as a confessor may be a by-product of the audit, but it is one of its most valuable by-products.

Where one staff member of an organization desires to carry forward a careful study of labor conditions, the proposal may or may not meet with the approval of the management. If it does not, the management has in the long run to be "sold," just as it does in advance of any other innovation. An able personnel manager can, nevertheless, from his position in the organization make a labor audit in the course of his own work that will be surprisingly complete, even though he has not access to all the details of practice and policy in the other staff departments. As a matter of fact, however, an up-to-date management will show little reluctance to having the personnel department carry on careful labor studies. Wise managers are making it a definite part of the personnel manager's duties to make such studies at periodic intervals.

Obviously, this spirit of cooperation and helpfulness must extend throughout the management down to the lower executives. Much valuable information about the concrete application of the labor policy is in the minds and experience of the foremen, and unless they have been explicitly assured that they can safely be free with their information, this important source of experience and facts may remain virtually untapped.

Thorough analysis of the industrial relations problem requires also a direct contact with workers as to their particular problems, points of view, and difficulties. Audits have been made under different conditions—in plants where the management felt that it was inadvisable to interview the workers directly; in plants where the management was indifferent as to whether the workers were consulted or not; and in plants where the workers were instrumental in having the study made and were deeply interested in seeing to it that all the facts were made available. It can be said definitely that the most satisfactory results are obtainable under the last of these three conditions.

It is worth while, however, to mention further the situation in which it is not deemed desirable by the management for the consultant to have direct contact with the workers. This limitation has not proved as serious as might be supposed. It is usual to find among the foremen and other executives one or more who through long acquaintance with the company can tell a graphic story of its successes and shortcomings on the labor side. In almost any corporation if one were simply engaged to make an audit of the executive organization including foremen, one could lay bare many of the difficulties which are hampering right personnel relations; but to limit the study in this way is to lose one of the conspicuous educational values of the audit.

Among the employees there is always information and a point of view toward matters under examination, which is illuminating and suggestive of needed changes. Since they are the ones chiefly affected by the employer's policies, workers are clearly those who should be questioned and consulted. The objection made by employers who do not want their workers interviewed is that it will stir up trouble. It may safely be said that this fear is ungrounded if the auditor is a person with reasonable tact, and if the existing conditions are not already so aggravated that open trouble is inevitable.

Manifestly, the most satisfactory results are to be had where the workers are a party to the audit. One of the most informing and practically useful studies which we ever made was in an organized plant where representatives of the trade unions were instrumental in having the study made because of the dissatisfaction of their members with the conditions of employment. The auditor met with a representative committee from the whole

plant on the first evening and got a general sense of the difficulties. Each subsequent evening was spent in conferring with a delegation from each department and the days between were spent in the respective departments, checking up with the foremen and other executives the testimony obtained on the previous evening. At the end of the study, the auditor presented his general conclusions to the whole group verbally and talked them over informally with the management. He then wrote the final report, which was instrumental in ironing out the acute troubles.

In any plant which has any appreciable degree of employee organization, and where an audit is being undertaken for the management, it is advisable that the auditor be allowed at the outset to indicate to the employees' group the purpose and method of his inquiry. In this way he can at once set at rest any question about his constant presence in the plant, or suspicion as to his reason for being there.

Useful as the labor audit check list is as an instrument of diagnosis, it achieves maximum usefulness only in the hands of a qualified auditor. Let it be emphasized that *the labor audit will be no better than the auditor.* Everything will depend upon his qualifications. First in importance should be placed his ability to elicit and respect the confidences of the people with whom he confers. In other words, he must be a person of agreeable personality; he should be patient, accurate, dispassionate, sympathetic, tactful. He should be discriminating and temperate in revealing what he knows; he should be preeminently gifted with a teaching sense that will enable him to draw people out and inculcate his own ideas only as fast as the individuals and the organization can absorb them. In addition to these more personal qualities, certain definitely intellectual qualifications are necessary.

It seems reasonable to assume that when a concern makes a labor audit it does so because of an appreciation of the importance of right industrial relations; it does so because it recognizes the need of correction or improvement. But correction and improvement can only take place if a comparison is constantly being made between what is and what ought to be. In other words, the labor audit will only serve its purpose if it is in the hands of an auditor who comes to his work in a liberal, progressive, and well-informed spirit. An effective labor audit cannot be made by a person of reactionary temperament and ideas. For the auditor

has to see each organization's problem, not as an isolated phenomenon, but as part of a world movement of liberalizing and humanizing influences. He must, in short, have a reasonably clear conception of how the industrial relations of the plant could be run with greater and greater success and felicity, if his recommendations were allowed gradually to have effect. If the audit is to exercise a constructive influence—and this is its only excuse for being—it must be made by a person who is a practical idealist, who keeps himself informed upon all developments and experiments in the field of industrial relations, and who is able by the weight of facts to win others to his way of thinking.

Methods of Conducting the Labor Audit.—The following statement of the methods to be employed in conducting the labor audit is made from the point of view of the outside consultant. Some problems of contact which are serious for him will undoubtedly disappear when the study is made by those within the plant. Yet up to a certain point the personnel manager can profitably follow much the same procedure as the one here indicated.

It is literally true in the present writers' experience that in no two organizations has the analysis been pursued in identical ways. The approach to each new corporation is a journey of discovery on an uncharted sea, and the auditor must be prepared to watch for every clue and be exceedingly flexible in his methods. It will be valuable, however, for him to have two or three general points in mind.

He should, for example, be sure to talk with those executives who "have ideas" on the labor problem of the factory. These individuals may not be found administering the personnel relations, but they are to be found in some capacity in almost every plant. In the second place, the auditor will take pains to plan his campaign of interrogation and conference in such a way as to get the maximum educational results. His temptation will be to adopt the attitude that he is there simply to get the facts. Indeed, this is perhaps the subtlest danger to which the auditor may become a victim. It will be the line of least resistance for him simply to draw out information as quickly as possible, draw conclusions in his own mind, write as effective a report as possible, setting forth the facts and his recommendations, and consider that his work is then ended. The trouble with this method is that it is likely to lead to the futile consequence that his report is

simply read and filed away without action being taken, or without enough action being taken to constitute a real change in policy. Emphatically the process of making an audit is *not* simply the writing of a report. *It is a process of constant education through personal contact, conference, discussion, question, and answer.* Half the educational value is on this personal side; and to ignore it is to miss the real opportunity for most rapid advance.

In short the auditor must sell his ideas as he goes along, both by the way in which he asks his questions and by the way in which their assent to the facts brings the executives naturally to an acceptance of the auditor's conclusions.

The first interview will naturally be with the highest executive, with whom the auditor takes up especially problems of the determination of personnel policy and the nature of the policy under which the company at present operates. It will be important to get from him as clear a picture as possible of the division of responsibility and of authority in the organization. In this connection it will be helpful to secure or to have made, an organization chart of the executive organization as a whole. It cannot be too greatly stressed that at the bottom of many personnel problems is the fact that responsibility is vaguely assigned, and that authority is not clearly designated on important matters of administration. Indeed, the auditor's efforts in the direction of clarifying function are not simply indispensable to him; they are invaluable to the company.

The labor auditor will indicate his method of procedure to the chief executive and will ask to be introduced to the lesser executives with whom he can talk to advantage; he will also see that the top executive instructs the other officials to put necessary data and records at his disposal. Whether or not all such tabulated matter should be studied next by the auditor, he will have to decide on the merits of the individual case. Usually, however, he will carry on his interviews and observations with greater point if he has that grasp of the outstanding problems which a preliminary study of the records may reveal.

Available Records.—Turning, therefore, to a consideration of the records and printed material on personnel matters which the auditor should examine, the following data will be of service:

(*a*) The number, causes, and cost of accidents.
(*b*) The amounts, causes, and cost of sickness.
(*c*) The amounts, causes, and cost of occupational disease.

(*d*) Figures showing the relation between wages and output; between hours and output; between labor turnover and output.

This correlation of data is highly significant. It may not always be possible to secure it; but there is unquestionably one of the most fertile fields for statistical refinement in this problem of correlating the figures on the production and the human side of the business.

(*e*) Length of employment of workers and of leavers.

It is important to know what percentage of workers has been at work for a given length of time.

(*f*) Wage groupings by (1) amounts both in terms of weekly and yearly incomes; (2) sex; (3) age; (4) length of service; (5) degree of skill.

This arrangement of wage statistics will almost invariably throw light upon the efficiency of the company's payment methods and upon any serious discrepancies and shortcomings in amounts of pay. Companies do not usually compile their figures in this way, but if when the labor auditor commences his work he can call for a certain amount of clerical assistance, a good deal of this data may be collected during his visit—usually enough to make it possible for him to have a fact basis for his discussion.

(*g*) Records of labor turnover, lay-offs, and discharges.

To be significant these records should be itemized in various ways, but especially by departments, sex, length of service, amounts of pay, etc.

(*h*) Records of quality of work, amount of waste, number of seconds, or defective goods.

(*i*) Training costs.

(*j*) Costs of service work.

The adequate compilation of records is one of the immediate ends for which the consultant will have to strive with some pains. Many plants do not keep records of the above character with any permanency, and have no idea what the situation is regarding these personnel facts. It is not until the significance of more adequate control over these important items is understood that a proper interest in this type of statistical work arises. Nothing will be clearer to the executive who has seen the beneficial results of a more careful control of production costs, than that a certain minimum of personnel record figures will be immensely valuable.

In addition to the existing statistical data there will be, of course, a certain amount of *documentary material* which the auditor will examine with profit before he goes into the plant. He will familiarize himself, for example, with profit-sharing arrangements, constitutions of mutual benefit societies and employees' representation schemes, minutes of meetings of executives' groups, foremen's clubs, and employees' organiza-

tions, the files of the company paper or house organ, and similar sources of information about all the different personnel activities.

Interviews with Executives.—The wise auditor will usually conduct his personal interviews with the executives from the top down in the order of the authority of the lesser executives. In these interviews he will in many cases repeat the same questions—questions having to do with the responsibility and authority of the individual, those aiming to make clear his conception of the labor policy under which the company operates, those aiming to secure his evaluation of the success of that policy. The auditor will save himself considerable misunderstanding and will avoid confusion if he says specifically to executives who are outside the field of immediate personnel administration, that he is not talking to them as an expert in their field, but *that he is speaking to them only in his capacity as a labor expert anxious to understand how their problems affect the labor problem.*

In the course of such interviews he will necessarily have to go through a good deal of chaff to get the wheat, since every specialist is proud and eager to describe the technical work in which he excels; and it is only with difficulty, and often incidentally, that he will let fall any information which throws light on the labor aspects of his technical problem. For this reason the method of direct questioning must occasionally give way to patient waiting for an executive to tell his own story in his own way.

With the general knowledge of plant organization, policy, and practice, which the interviews with executives should afford, the auditor will then confer individually with each foreman. In this way he will get a valuable corroboration or denial of the statements which the higher executives have made. He is frequently astonished to see the wide discrepancies between the stories which the higher and lower executives tell, as to the definition of responsibility and the character of the policy under which the company is operating. The labor auditor has a major task in helping to clarify this situation and remove misunderstandings.

In the interviews with the foremen he will concern himself also with the detail of the individual foreman's methods of running his department. It is one of the substantial by-products of the auditor's work that he comes to have a fairly good estimate of the competence of the various executives for their jobs, and he will know which executives are most successful in carrying on their work as it affects the labor problem.

Attendance at Meetings.—The auditor will also get much light upon the practical working of the company's human relations work if he attends every executives' or workers' conference or committee meeting which takes place during his stay in the plant. Not infrequently an operating committee of the executive staff has daily meetings. Attendance at these meetings usually brings out suggestive information, even though many of the problems treated have no direct bearing upon the labor question. The same will be true of foremen's meetings, councils, and conferences held both for business or for social purposes. If there are meetings of employees' organizations of any sort, which the auditor may attend without being too conspicuously out of place, this also will be valuable.

Finally, of course, there is the method of direct observation of conditions and procedure. The auditor's eyes are always open not alone to matters of physical arrangement and convenience, but to the going methods and that indefinable thing, the atmosphere of the shop, which, subtle as it is, frequently tells much about the workers' attitude.

In short, the auditor must have his wits about him at every moment of the day to discover ways and means of acquainting himself with the effects of the current labor policy of the concern on the attitude and efficiency of its personnel.

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CHAPTER XXI

THE LABOR AUDIT CHECK LIST

The check list which outlines for the investigator the subjects to be covered in the labor audit might conceivably be created afresh by each investigator in the light of the problem he is about to confront. Naturally some modification in subject matter is necessary in every situation, but there is still a value in a master check list which will be reasonably definite, standardized, and exhaustive in character. The form of check list here discussed is not necessarily the best that can be devised, and the present arrangement of topics is not defended. Its use here is simply illustrative and suggestive of one possible way of developing a method for systematized personnel study. At the moment it is less important what standard form of procedure is agreed to, than that the value of some standard form is recognized.

No one familiar with the extraordinary inter-relation of subjects in this field will deny that any grouping of headings is at best arbitrary. Therefore, only an attempt to explain briefly why subjects are grouped as they are will be made. It is impossible in a chapter of reasonable length to state exhaustively what questions should be asked under each of the main headings, so the treatment throughout is primarily suggestive of a method of procedure.

Acknowledgment is here made of the value of the work of the late Robert G. Valentine, who probably was more instrumental than any other person in giving practical form to the idea of a labor audit. However, the arrangement of topics which he evolved, and which was set forth in the first edition of this book, is modified here in the light of additional experience. The general set-up of topics here employed rather follows the sequence of development used throughout this book; namely, a discussion of the work of each of the operating divisions of the personnel department, and of all of the personnel activities.

Outline of Labor Audit Check List.—The topics of the labor audit may conveniently be grouped as follows:

I. Employment:
- Sources of labor supply
- Selection
- Placement at work
- Following up new workers
- Transfer
- Promotion
- Discharge
- Employment records
- Labor turnover records

II. Terms of employment:
- Wages
- Amounts and methods
- Hours
- Indirect compensation
- Group life insurance
- Health insurance
- Unemployment insurance
- Stock purchase plans
- Profit-sharing plans
- Pensions
- Production standards

III. Health and safety:
- Medical department organization
- Safety department organization
- Fire hazards
- Accident hazards
- Ventilation and heating
- Lighting
- Cleaning
- Drinking water
- Sanitary equipment
- Seating and rest rooms
- Dressing rooms
- Noise and vibration
- Factory exterior

IV. Training:
- Job instruction
- Foreman instruction
- Executives' instruction
- Americanization
- Training for promotion
- Inspection
- Suggestion systems
- Company house organ

V. Service work:
- Restaurant and lunch rooms
- Saving facilities

Housing
Recreational activities
Cooperative purchasing

VI. Research:
Job analysis
Job specifications
Labor audit
Medical research.

VII. Negotiation and adjustment:
Conference methods
Employee representation plans
Collective agreements with trade unions

VIII. Managerial policies, methods, and opinions (as bearing on personnel policies:
Production organization
Sales organization
Financial organization
Personnel organization
Coordination of staff and line departments
Outstanding economic beliefs of owners and executives

IX. Outside relations:
Employers' associations
Trade unions
Labor legislation
Labor law enforcement
Court decisions
Transportation
Public education
Public health

In using the above outline, the point of view of the survey is *to discuss in relation to each of the items named and to all the sub-items which would naturally occur in connection with them, the way in which they affect the relations of the employees to the company.* The question always is: Does a given procedure, or the absence of a given procedure, influence the employees' relations beneficially or adversely?

The Mechanics of Presentation.—It is important to consider how the finished labor audit may be most effectively presented to those for whom it is being prepared.

There should be a good index at the beginning of the report. There should be at the outset a concise summary, a few pages in length, indicating the high lights of the report and its recommendations.

Experience shows that the finished report will constitute a typewritten document anywhere from 50 to 200 pages long. It may seem to the management that this is a bulky document. For this reason executives should be strongly urged *to read the report as a whole and in so far as possible at one sitting.* It is extremely important for the executives to *see all around* the problem at once; and this end can be most readily achieved if the audit is read through at one time. The executive can then go back at his leisure and study particular sections.

Two other possible contingencies may arise. In the first place, there are companies where two or three problems are found to be so outstanding in their influence that until they are stated and understood nothing else about the plant matters. In cases of this sort it is good strategy to preface the audit by an analysis of these major problems, and then to follow it with the usual treatment of the other topics. This method has the value of greater emphasis and directness of treatment of the salient difficulties.

In the second place, a good many executives are poor readers. They feel that they have not the time and therefore they have not the patience to absorb in detail an elaborate document. To be sure they are mistaken; they are usually trying to see in unduly simplified terms a problem which is inherently the most complex of all the problems of the organization—the problem of human relations. But such men have to be reached and influenced.

Several different methods have been employed to cope with this difficulty. For example, the report may be read aloud to the executive; or it may be reported to him orally in a series of conferences; or a special abstract of the whole may have to be prepared to supplement the conferences which the auditor has with the executive.

Another possible alternative is that the auditor should work in such close connection with the head executives over a period of weeks that by the time his formal report is finished, he has already imparted informally, through conversation, the gist of his facts and recommendations. In this way the executive may find that a great deal of the report helpfully duplicates and records for subsequent reference information he has already received. All of these, however, are unsatisfactory alternatives to having the executive devote the time and the thought necessary to a real reading of the entire report, which would then be followed by conferences with the auditor.

In line with what has been said in the previous chapter, it is important to have the objective facts distinguished sharply and clearly from the auditor's opinions and from his recommendations. Throughout the report this distinction should be observed rigorously, and facts and recommendations kept always under two distinct captions. Whether or not the recommendations in connection with each topic shall follow immediately after the fact discussion of that topic is a matter of opinion, although it seems that there is much to be said for this arrangement. Then, for purposes of reference, the important recommendations may all be brought together again in a conclusion.

In this summary of the recommendations it will usually be valuable to suggest the order in which the auditor believes the recommendations may be carried out most satisfactorily.

Uses of the Labor Audit.—The practical uses of the labor audit should be summarily considered from four points of view: the uses to the general management, to the personnel manager, to the workers, and to the community.

Uses to the Management.—The audit is useful to the management as a method of standard record and careful analysis; but the material incorporated in its individual sections, together with the recommendations, also may profitably be made the topic for discussion and for educational work in executives', foremen's, and workers' conferences. In a plant already well functionalized, the different sections of the report naturally would be turned over for action to the executive charged with the responsibility for the function under consideration; but more than this is necessary. The audit has been made from the point of view of assessing the all-around human and social solvency of the organization. To the extent that this all-around point of view may be imparted to all members of the executive staff by reading and discussing certain portions if not all of the audit, to that extent the broadest educational purpose will be served.

The audit also to a certain extent may give the management a good estimate of a personnel department's working efficiency. In other words, it may be an audit of the personnel department; but it is more than simply a statement of conditions. It should be definitely a working manual, which in the hands of all the personnel executives may be used as suggestive of a point of view and of new methods.

A further use of this check-list method is for purposes of reexamination at periodic intervals and compensations of results achieved and progress made from year to year. The use of a standard form of a report annually remade may be of great value in checking the whole progress of the company's labor policy.

Where new executives are being introduced both into general executive work and into the personnel department, it is convenient to have in fairly compact compass a statement that makes clear to them how the company's labor policy is operating. If a labor audit is turned over to such new executives to read, they can be quickly instructed in these policies and methods. As a document for the instruction of new executives the audit may have significant values.

Again, the conscientious and enlightened employer, who is appreciative of his social responsibility, should be able to find in the audit an appraisal of the human solvency of his business. He should be able to get a clear picture of the problems which remain to be solved, of the immediate steps he should take toward their solution, and of the larger problems he should have in mind to work on over a period of years.

Finally, this entire technique of survey may be applied also to an office, a city department, a railroad, mine, hospital, or any other institution where there is a relation of employer and employed. With obvious modifications the labor audit may be of great service to the management of all types of organizations.

Uses to the Personnel Manager.—From the point of view of the personnel manager, the labor audit has certain values which are to be obtained in no other way. It enables him to visualize all the elements of his problem. This knowledge of all aspects of the situation with which he is dealing is indispensable to the forming of a right and adequate policy. Also, this enables him to sell his policy to the organization with maximum effectiveness.

Another use of a different kind should also be mentioned. The personnel manager, if he is casting about for a *method of filing* the flood of pamphlets and clippings on personnel which pour in upon him, may find that the topical arrangement of the audit with its sub-topics affords a convenient method of filing.

Uses to the Workers.—The time has now come to meet one possible objection which may arise to the labor audit from the workers' point of view. It may be said that the audit is simply

a device to inquire into the workers' grievances before they have reached substantial proportions and to forestall by preventive measures any vigorous or direct action on their part. In other words, it may be objected that the labor audit is being used to maintain the employer securely and with a better conscience in the control of a situation which, from the broadest point of view, may require that control be shared. From this point of view, the audit is being used to salve the employer's conscience and equip him with methods of administration which enable him to maintain himself more securely in a basically autocratic position.

The answer to this objection is clear. The labor audit is primarily an instrument of inquiry. It is an instrument used to discover unscientific, inhuman, and socially inexpedient policies and methods in the labor relations of an organization. In so far as it is an instrument of precise analysis, it stands on its own feet and is of use to anyone who will utilize a method of exhaustive study. The fact that a weapon of any sort is capable of dangerous misuse is not an argument against its use. It has simply been an argument for its use *in the right hands and with the right purposes.*

As a matter of fact, as a result of investigative work done both in union shop plants and in public utilities, it is clear that there are substantial values to be derived from the use of labor audits by the organized workers and by public regulative bodies. The time may be looked forward to when the organized workers will on their own behalf (or jointly with the employers) undertake just such systematic analysis as is here recommended, of the conditions and terms of employment under which their members work. Increasingly, as the unions see themselves in need of accurate facts, both for the protection of the health of their members, for their instruction, and for the information of the public, they will see the need of a method of inquiry which will at least approximate that of the labor audit.

As to the objection that the audit may bring to pass methods of procedure which will make the workers content with a relationship which is fundamentally inequitable, the answer is that in the use or abuse of this method much depends upon the point of view of the auditor. His recommendations may be far sighted or they may be of only temporarily alleviative value; but whoever owns the shop and whoever controls the shop, the problem of maintaining a cordial relationship between manager and managed

persists. In the administration of that relationship, as well as in the administration of the correlation of the different departments of the organization, there is under any ownership the necessity for as scientific and precise a method of analysis as can be devised. If in the mind of the auditor the present relationship of the capitalist or manager to the workers in a particular company has in it inherent elements of unfairness or injustice, there is no reason why the auditor should not point that out in his audit.

In short, these objections to the use of the audit, while they should be borne in mind as warnings, are not really serious; and it is to be hoped that organizations of the workers and of the public, as well as managers, will extend the use of this method of fundamental analysis.

Uses to the Community.—As the public responsibility for the proper conduct of the public utilities is more and more stressed, and to the extent that assertion is made that the "interest of the public is paramount," it will be a public obligation to have the facts about the operation of the labor policy of public utilities constantly at the disposal of the public. Most of the material that a labor audit contains should not be simply a matter of public record where public service corporations are involved; it should be a matter for deliberate publicity in published reports, newspaper write-ups, pamphlets, bulletins, etc.

In some of the most critical strikes in street railway transportation, for example, if the public had known accurately what the facts were, in advance of the interruption of work, it would have brought pressure to bear on both sides to effect a modification of policy and practice which would have made a strike altogether unlikely.

There is a still wider field for the audit's usefulness. It is increasingly recognized that state industrial commissions have not simply a regulative, but a preventive and constructive function. In order successfully to perform that function for all industry there is needed more information about every company. The time may not be far off when state labor commissions and the United States Department of Labor will institute what in effect will be bureaus of labor audit and research.

Results of the Labor Audit.—The results of the labor audit hinge largely on two factors: on the character, capacity, and conviction

which the auditor himself carries, and on the inclination of the interested parties to act upon the recommendations which are made. Assuming that these two conditions have been met, it is possible to indicate several tangible and beneficial results.

In the first place, the audit should increase the ability of those who determine personnel policy to see that policy as a rounded whole, to see that there are no panaceas in this field, and to see that a great variety of problems must be attacked, if conditions are to be bettered and more just relationships established. This is an incalculably desirable result since it will check the tendency of executives to pursue hobbies and panaceas as solutions.

Another value should be as an aid in laying out a long-time plan of personnel activities on which a company can soundly work for some years to come. In other words, there results from the audit a new sense of *significance* and *direction* in personnel policy.

From the point of view of labor organizations, the results of the labor audit will look in the direction of getting both the conditions and the government of industry upon a fairer and more equitable basis. The immediate result will be to inform organized workers in a concrete way as to the practical success, from their point of view, of the existing structure of government.

It can finally be said that as soon as the labor audit is used as an instrument of public investigation and oversight in industry, it will bring to light a vast number of discrepancies and inadequacies in the administration of industrial personnel work, which will be almost automatically corrected once the light of day is let in upon them.

Robert F. Hoxie well characterized the existing condition which the labor audit is calculated to correct, when he said:

> In labor contests no foreknowledge exists; there is no machinery for getting it, no enlightened public opinion; there is arbitrary disregard of public rights, false claims, and a helpless public.
>
> We must have means for developing a body of exact and truthful information, developing common standards of right and justice (maxima and minima or rules of the game), developing a real public opinion back of them, developing a constructive social program, getting centralized, strong, able, elastic administration and enforcement of laws, with a view to the whole situation; getting and applying knowledge and standards to control, and in the settlement of contests, creating to this end social interactions. This understanding and knowledge can be secured only by the closest first-hand study in the field. It is all a matter of

doing the work in a calm, orderly, large-minded and far-sighted, constructive and scientific manner.[1]

Professor Hoxie has well expressed the larger function of the labor audit. It is to supply knowledge, discuss method, and evaluate personnel policies in a temper which is large minded and far sighted. It is to inject into the discussion of proposed constructive policies for industry a realism and concreteness which will keep everyone's feet planted firmly on the ground. It is to create a sensitive regard for practical and helpful suggestions which are of permanent value, because they are elaborated in the light of a clearly defined and socially wise purpose of industrial growth and service.

The problem of control and of authority is indeed basic in modern industry. Progress will be halting and subject to violent transitions, unless all parties to our economic life address themselves in a public spirit to the task of applying knowledge and standards in the field of control. The labor audit's justification is the aid it can bring in this discovery of fact and standard, and the dispassionate spirit which it can help to cultivate for the discussion of sound methods of government and administration in industry.

[1] Hoxie R. F. "Trade Unionism in the United States" pp. 374–375.

CHAPTER XXII

THE ELEMENTS IN WAGE DETERMINATION

The problem of payment occupies a position of central interest in the industrial world. "How much do you pay?" "What *is* a fair day's wage?" These two questions are immediately put by workers on the one side and employers on the other. Over wages, piece prices, and payment plans controversies seem endless; the differences seem often insurmountable.

The need is clearly for a fresh approach to the problem; for an attempt to see if any standards exist or might be established, if any broad principles may be agreed upon which tend to narrow wage discussions within reasonable limits. It is the purpose of this and the next chapter to consider the present attitudes and standards of managers and workers toward payment, and to see if current experience with newer payment methods suggests the underlying principles which a good plan should aim to incorporate. It will not be attempted, however, to cover ground already covered by other writers[1] in description of the great variety of premium and bonus plans. The purpose here is rather to see what outstanding tendencies are being reflected in the best current payment practices, since a survey of existing methods indicates a clearly defined group of principles which underlie the minor differences in prevailing plans.

The Employer's Point of View.—Three distinct points of view about payment are distinguishable among employers. They may be characterized as (1) paying the going market rate; (2) paying enough more than the market rate to buy greater interest and create an incentive; (3) paying scientifically in relation to several factors—*e.g.*, cost of living, years of service, profits of the business.

Undoubtedly, the first of these points of view is still quite prevalent. This is the theory which squares with the so-called "fundamental law of supply and demand" on which the older

[1] For an exposition of existing wage schemes, see JONES E. D., "Administration of Industrial Enterprises," Chaps. XX and XXI.

employers were brought up. It implies that the market rate is set as a function of the relation between the supply of workers and the demand for them. Labor in this view is a commodity, the value of which rises and falls with the availability of the supply. Asked what determines the amount of wages, the employer who holds this view will answer: "It depends on how much we can get workers for. If there is a crowd around the gate, we can offer less; if we need more workers than there are in sight, we must offer more." This notion gives rise to the attitude that "we pay as little as necessary and then do all we can to get as much work as possible."

This frequently met but surely over-simple analysis of the wage problem is now superseded, in the thinking of those employers who make any claim to enlightened self-interest, by another point of view. The idea is gaining ground that not low wages but high wages bring low costs. It is desirable, in this view, not merely to buy so many foot-pounds of a worker's energy, but to create some incentive. Piece rates are offered with this idea in mind; all the numerous differential payment and bonus schemes work from this basis; and many of the so-called "profit-sharing" plans and methods of easy purchase of company stock have this end in view. If the worker realizes that the amount of wage is conditioned by his own effort, his efforts will be more sustained and the production greater.

It is definitely a part of this whole idea that whereas wages will be higher than under the market-rate theory, they will not by any means be high enough to absorb the whole, or even any large proportion, of the saving in costs which results as soon as the number of units of output per hour or day is largely increased. Fundamentally, this point of view is closely related to the market-rate theory, since here also the effort is in the direction of paying as little as necessary (although it is seen that more than the market rate is necessary) to get as much work as possible.

In plants where either of these two points of view is held, the simplicity of the case may be destroyed by the entrance of collective bargaining under which the workers aim by their organized power to get a base rate which seems to them more equitable than that based on "supply and demand." However, to the extent that the employer finds that the union scale does buy a reasonable interest and incentive, collective bargaining need in no way conflict with his purposes or the security of his rate of profit.

There are, finally, an increasing number of managements which desire to get a more "sound" basis of payment. The usual tendency in the plans of these employers may be briefly outlined as follows: They set a minimum wage in direct relation to the cost of living; they attempt to evaluate a number of elements in determining pay, as for example:

Rate of production.
Spoiled work or damage to equipment.
Years of continuous service.
Lateness and absence.
Number of major processes worker can do.
Monetary responsibility placed in hands of workers.
Cooperation and conduct.[1]

They may also attempt to make some permanent, regular, and stipulated distribution of the entire profits after agreed deductions for a limited dividend and other usual charges.

To employers in this third group it is suggested that a careful study of both parts of the payment plan hereafter discussed will offer practical aid. To employers in the other two groups, it is suggested that even if immediate and complete adoption of the payment principles here proposed seems a long way ahead, there are good business reasons for making use of many of them.

The Employees' Point of View.—Current facts about wage questions also include the employees' attitude. Here, again, there are three fairly distinct points of view; and they parallel in a significant way the various attitudes of employers.

There is, first, the "get away with it" attitude; the point of view that the worker will do as little as necessary and get as much pay as possible—the direct and inevitable response to the employer's similar attitude. Although widely held, this view is always susceptible to modification in one of several ways.

There is, in consequence, a second, less simple view that if more than the market rate can be obtained, more work will be done. Normally, the worker whose vitality is not impaired and whose education in subservience has not been too complete will want to earn as much as possible and will respond to financial incentives. He desires promotion and he realizes that this only comes as he makes a good showing at his present job. Finally, the instinctive desire to contrive—the creative tendency—is not wholly dor-

[1] Babcock, George D., "The Taylor System in Franklin Management," pp. 79–108.

mant, and it demands some expression through the outlet of "doing a good job."

This second, more complex, motivation is likely to be further complicated by certain reservations which the more intelligent workers at least can be counted on to make. They realize that under most of the bonus schemes the company not only gets much greater output, but it gets it at a progressively less cost per unit, the bonuses rarely absorbing as much as 50 per cent of the saving in costs when production is increased.

They find also that bonuses are usually offered for individual or gang effort under a regime of individual bargaining, with the consequent danger that if certain individuals do "too much" the rate will be cut, and the less skilled workers be forced out of a job or over-speeded. Workers have sometimes preferred to receive a somewhat less wage rate which was uniformly adjusted for all workers under a collective agreement than be enabled to earn much higher individual rates by bonuses under individual bargaining.

Again, where the incentive is in terms of profit sharing or stock participation, workers tend to be suspicious unless the basis of the plan is clearly understood by them; unless it is in the form of a definite, binding commitment in advance by the company; and unless they have some share in its administration.

There is also an attitude rarely met among workers because the conditions are seldom such as to bring it into prominence—that the worker wants the greatest possible satisfaction through and out of his job. This means that the job is not only to give as large a return in cash as possible, but also that the conditions surrounding the work are to be right, and the job itself is to offer a genuine medium of expression for the individual's talents and desires. This attitude is relatively rare today; but it is not too much to say that something approaching it is the necessary condition of a sound and productive industrial system. If it is an "ideal" attitude for workers to have, it is an ideal worth studying to make real.

A Basis for Common Action.—The foregoing resumé describes a clash in points of view which is acute today. There is felt to be a divergence of interest regarding payment; and there is usually inadequate chance to discuss that divergence and secure a common basis of understanding and action. In consequence, there is ill will, suspicion, and distrust on both sides; and a dis-

position to regard any scientific and equitable adjustment of the problem as unlikely.

It seems, therefore, that if some common basis in knowledge can be reached, if some common meeting ground for discussion can be obtained, if some decision can be reached on agreed principles of wage determination, and if some temporary adjustments are possible on a basis of an application of the principles to the agreed facts—then, and only then, can managers hope for some relief from destructive conflict and perpetual bickering. These four points deserve careful examination: Can there be common *knowledge* about payment, a common *meeting*, certain common *principles*, and *agreement* on actual adjustments? The place of knowledge of facts in the payment problem will be considered next.

The Fact Element in Payment.—There is a growing disposition to give attention to more than one or two factors in determining pay. At any one job it will be necessary *to make a selection* of the factors which it is agreed shall have weight in reaching decisions about the pay.[1] Therefore, in the following list are included a number of items from which such a discriminating selection as the character of the job warrants may be made. It is *not* claimed that all these items necessarily require statement in relation to *every* job.

First in importance stands the *cost of living*. More and more, companies are realizing that wages which bear a close relation to the cost of living are a necessary charge upon the business. They realize that if machine maintenance is important, the adequate maintenance of the really active and sentient factor in production is doubly necessary. It would seem hardly a matter for dispute that if people are needed at all in industry, they must be paid enough to preserve health, vigor, and strength—enough to maintain their productive power. The only reason why this has not become a truism is that this country has been able to rely upon a constant inflow of foreign workers who either were able to get along on low wages because of a simple standard of living or who did not stay long enough on a job to feel to the full its ill effects. Now that this inflow is restricted and the extension of an American

[1] See in this connection an article by LOTT, MERRILL R., entitled "Wage Scales With a Reason," in *Management and Administration*, May, 1925, which is an excellent statement of the experience of the Sperry Gyroscope Company.

standard of living to all workers is spreading, the use of the cost-of-living standard to help determine minimum rates of pay will inevitably spread.

Amount of output will increasingly be a factor in determining pay.

The reason for this we have already elaborated.[1]

Quality of output is a factor. At those jobs where quality is definitely determinable, there is every reason why it should figure in determining a worker's pay.

Material cost is another item to be correlated in deciding upon a worker's competence. Under this term may be included several elements, some or all of which may be measurable at any one job; for example, amount of power consumed, cost of machine maintenance, amount of waste, spoilage of work or equipment.

Time factors would be a further element in making up a worker's rate. Regularity of attendance and lateness would be especially considered here.

Previous education necessary will vary with the job; and it is naturally true (if there is to be any pay differential at all) that the job for which one can qualify with no schooling will pay less than the one requiring a grammar or high school education.

The amount of job instruction necessary also helps to gage the degree of skill required. The trade which it takes 4 years to master normally will command more than the job which is learned in 2 weeks.

Length of service is in some occupations made an important determining factor. This is especially true of work where the obvious technique is easily learned, but where the worker's value increases with the years because of his reliability, more perfect command of the job, and the more complete confidence which it is possible to repose in him.

Hazards of the job sometimes affect the pay favorably to the workers; sometimes they do not. It certainly seems, however, to be a plausible conclusion that when there is an increased risk of sickness, accident, or even death constantly present, the necessity for the worker's making exceptional insurance provisions justifies high pay. Moreover, as workers come to discriminate, it will be necessary to pay a differential to induce them to engage on more hazardous jobs.

[1] See Chap. XIX.

The disagreeable character of work will tend to play a larger and larger part in determining pay. It is one of the anomalies of an over-supplied labor market that those who do the most disagreeable work receive the least pay; but as the supply of illiterate labor is reduced, a premium will necessarily be placed upon that work which is carried on under unpleasant conditions.

Possibilities of advancement in some cases affect the amount of pay. Where these possibilities are good, that often has the effect of keeping down the rates at the lower grade job, as the increase in pay comes with the promotion to the higher job.

Wages in the local community will usually be an influential factor. Especially will it be useful to know the rates paid at jobs of a character comparable with those under consideration.

Wages in the industry afford important data. The wage figures of competitors are at best misleading, however, since what is really significant is the *amount of product per dollar of payroll*, and the amount of workers' *yearly* incomes rather than their hourly rates. Wage rates are only loosely comparable; unit costs if compiled by different shops in identical ways give a more accurate basis for comparative study.

The extent of demand for the product will in the long run exercise an influence over pay. An industry with a falling market is never in the same position regarding wages as is an industry with a rising market.

The amount of profits of the business is already admitted to be a factor in determining pay in many cases. Where wage rates are on a sliding scale fixed with relation to prices, wherever in addition to wages an annual bonus is given based on a per cent of wages paid out of profits, wherever monopoly conditions have given rise to large profits and higher than current wage rates are paid—it is roughly true that in all these cases the amount of profit is a factor in the determination of wages; and it is certainly further true that the company which is known to be profitable is more likely than the less prosperous one to be pressed with demands for larger pay (with the qualification that the more prosperous company may resort to repressive practices which keep "agitation" at a minimum).

Ultimately, *methods of financing* the company will have an effect on the payment situation. Policy as to the amount of outstanding capital stock in relation to real assets, amounts set aside for depreciation, for reserves, for surplus and extensions, for spec-

ulation in raw materials will influence the finances of a corporation appreciably. The eventual connection between decisions on all these matters and wage determination may become very close.

Finally, the policy regarding the *relation between wages and salaries* will be a factor. If the company has an established procedure regarding minimum wages, that sets one definite bottom limit to pay. If it also has a scheme of a salary maximum in each classification and of a specified range of salaries in each grade of executive position, that further defines salary obligations and the total charges to be met.[1]

Sources of the Facts.—Before discussing *who* is to secure all these facts and *how* they are to be used, it is necessary to indicate briefly *where* they are to be found.

Data regarding cost of living are available in the monthly reports of the United States Department of Labor, which give figures for typical selected cities throughout the country, showing fluctuations in terms of a theoretical family budget, retail prices of selected commodities, and selected wholesale prices. These figures may be checked against the Times Annalist index figures, the Dun and Bradstreet index figures, and other occasional public and private studies. Important among these should be mentioned the findings of minimum wage boards as to costs of living for single adult women.

Data regarding amounts of output, quality of output, material costs, time factors, previous education necessary, amount of job instruction necessary, hazards of the job, disagreeable character of the work, and possibilities of advancement should all be provided in the job analysis of each job; and production and employment records would naturally be available to supplement the analysis.

Data concerning wages in the community, wages in the industry, and the amount of demand involve wider industrial contacts; but much of this material usually may be secured through chambers of commerce, boards of trade, and the national trade association of the industry.

[1] For the interesting specific evidences in this connection see the following sources:

Beyer, O. S., "B. & O. Engine 1003" *The Survey* Jan., 1, 1924.

Brown, G. C., "Workers' Participation in Job Study," *American Federationist,* November, 1925.

The rest of the data—profits of the business, financial policies and provisions, and salary policies and provisions—is usually considered today to be the special private property of those in ultimate control. It is all available, however, whenever owners and managers feel it is expedient to release it. Indeed, the compilation of this data for public use by public utility corporations is already regarded as normal and natural, and many firms, once started on the road of profit sharing or employee representation in management find it not only expedient to make this information available to manual workers, but a necessary condition of the success of their plan.

Securing the Facts.—The next question is: Who is to compile the facts, and how are they to be brought to bear upon the detailed process of fixing wage rates?

The actual compilation of data in this connection would usually be in the hands of the personnel department; and this would be true even where a joint shop committee was charged with the duty of assembling fact material. Indeed, the relation of employees to fact-finding and its application are so important as to merit specific analysis. It will be remembered that in directing the making of job analysis several reasons were advanced for having employees participate in the supervision of this work. Briefly, they were that:

Employees have certain facts about the job which no one else has.

Employees will agree to findings and adopt them only as they take a hand initially in formulating them.

Employees will feel that their interests are adequately protected only as they have representation in the deciding of process problems.

Gemmill, P. F., "A Survey of Wage Systems," *Industrial Management*, October, 1922.

Hotchkiss, W. E., "Extra Incentive Wage Plans," American Management Association, Production Executives' Series, 20, New York, 1925.

Hunt, E. E., Editor, "Scientific Management Since Taylor," Chaps. XIV–XV, New York, 1924.

Merriman, M. E., "The Standard-hour Plan of Wage Payment," *Management and Administration*, May and June, 1923.

Tyler, W. S., "Extra Incentive Wage Plans," American Management Association, Production Executives' Series, 24, New York, 1925.

"Union-Management Cooperation in the Railway Industry," in Taylor Society *Bull.*, February, 1926.

Employees know that all elements in the analysis are not matters for objective measurement; that on matters of opinion or desire their opinion and their desire are as important as anybody's.

When now it comes to be asked who is to supervise the collection of facts and their use in deciding wage amounts, one is forced to ask whether *the same arguments which point toward jointly controlled job determination do not point with equal force toward jointly controlled pay determination.* Each of these four reasons for joint action on work, it is believed, may be sensibly applied in relation to pay.

Reasons for Joint Pay Determination.—In relation to the cost of living, for example, employees know from experience how much they have to spend per week. They are in a position to tell how closely the available cost-of-living figures apply to their local situation. The company's compilations on this subject may be as "scientific" as possible; but if, with existing standards of living and habits of consumption, local employees can demonstrate that wages are inadequate, their claims must be recognized. It may possibly be true that there is something wrong with their existing standards of living or habits of consumption—but that is another question. Surely, if the employer has any duty toward his employees in educating them to improved standards of consumption, the method of that education would not be by curtailment of amounts in the pay envelope. People learn to consume by consuming, and a certain amount of what might from one point of view be "foolish expenditure" is a necessary part of every individual's self-education in consumption.

Furthermore, only the workers themselves can speak for themselves, not merely as to what they need, but as to what they want. What they want may seem unreasonable—under certain conditions it may be unreasonable—but the air is kept clearer and action takes place in closer relation to knowledge if what the workers want is openly known and jointly considered.

Turning to the second argument, it is true of wages that in the long run workers acquiesce in a wage scale only when they have had a hand in framing it, or in proposing it. The experience of recent years with shop committees which have shared with management the determination of wage rates should be conclusive on this point. Both in a period of falling wages and afterwards in a more prosperous era, these committees have in case

after case shown their willingness to collect, weigh, and reckon with facts about competitive wages, company financial conditions, market prospects, and the like. The fact of their participation in reaching the decision has assured their good faith in holding to it until some element in the whole situation changed.

In the third place, the idea of representation of interests is gaining such rapid headway in industrial organization that it is not surprising to see it being applied to the critical matter of wages. The protection which employees want in payment matters *they can usually best secure by organized effort of their own.* If the management wants to cut costs, the likelihood is that it will start with the reduction of wages. If it wants to cut production, the likelihood is that it will cut the payroll. If the workers have any voice at all, it is easier for them to forestall resort to those two paths of least resistance, and this is really a good thing for the management. It is thus checked from a course of action which is often shortsighted, and is turned to other measures of economy which are usually more effective because more fundamental.

Finally, it is truer even of pay than of work that the elements of opinion and desire are important. The discussion of pay can profitably be narrowed by a knowledge of the facts so as to be carried on in relation to the possibilities, reasonableness, and expediencies of the situation; but within those limits the determining considerations are not only facts, but also relative persuasiveness and bargaining power.

As long as preponderance in bargaining power remains with the management, as it does under individual bargaining, wages can be arbitrarily set, and many of the factors above discussed are ignored altogether; but with the extension of shop committee plans, the situations in which such arbitrary action may safely take place become progressively fewer.

In short, *it is shortsighted business policy to reckon without the desires and aspirations of the employees.* Perhaps the employer who thinks he can make his pile in ten years and then retire can afford to be thus shortsighted; but certainly no corporation can to which a continuing good will in the manual-working-class community is an asset.

Possible Objections to Joint Determination.—There are objections to making payment a matter for joint determination. The chief one is fear that employees will so raise wages as eventually

to reduce profits. There is but one answer to this. Wherever employees, either in shop committees or under collective bargains, have conferred with management on wages, there has been little evidence of a desire to be extortionate. The workers in a given situation are usually among the first to understand that the terms of employment must be such as to allow the firm to remain in business and hold them securely in their jobs. Indeed, only by joint conference can employees learn those facts which they must have if they are to agree to intelligent decisions about payment.

Another objection is that such conferences and haggling take time. This is true. So do strikes and lockouts take time and money, and generate ill will. Happily, the time spent in adjusting pay questions is usually of great educational value to both sides. Conference that is to the point, as well as frank and exhaustive in analysis and agreement upon facts, is always educational. It is one of the best possible tangible evidences to the workers of the good will of the management. It shows the management the point of view and desires of the workers, and such *personal encounter by each side with those on the other is an invaluable aid to cordial working relations.* Some concerns believe that such personal contact may be secured through parties, picnics, social and athletic events which the executives attend. These may be of some supplementary value, but the personal contacts which are truly valuable are those involved in furthering the work of production. For these contacts are more likely to be natural, necessary, and spontaneous.

The time spent in conference in individual plants is reduced to a minimum, however, wherever a district-wide collective bargain exists. Indeed, where such bargaining prevails on a district scale, the application of these same principles of *jointly controlled job analysis plus joint pay determination based on that analysis to the district under the direction of a representative district board* should be favored.[1] In these cases the work of pay adjustment in each shop is reduced to an interpretation of the application

[1] Much is already done in this direction under the collective agreements in the garment trades throughout the country, notably in the women's clothing industry in Cleveland, and in the men's clothing industry in Chicago, Rochester, and Baltimore. Usually, in each shop there is a shop committee or a price committee to confer with the management on the local application of the terms of the agreement.

of the agreed rates to the individual operation, to consideration of the possible local variations in job content, etc.

Conferring on the Facts.—Therefore, sound business reasons are found for advocating the determination of pay by the method of conference with employees. Next will be considered what shop organization is required for wage conference. The affected interests which should have a voice on wage problems when consideration of those problems takes place wholly within the shop[1] are:

(*a*) A representative of the financial management.
(*b*) A representative of the personnel management.
(*c*) A representative of the head of the department involved.
(*d*) A representative of the workers at the job.
(*e*) One or more representatives of the employees as a whole.

Each of these groups has a place in any conference which is to recommend or settle wage rates, since each brings to the settlement a necessary judgment and consent.

When this wage rate committee starts to work, there has presumably already been prior agreement in the joint job analysis committee as to the number of classes to be recognized and differentiated in pay. There has also to be either a definite agreement as to what factors are to have weight in deciding pay, or a tacit understanding (in which the really fundamental issues are ignored) that only the usual and obvious factors (such as prevailing market rates) shall have weight.

The company which for any reason is not prepared to attack the payment question thus fundamentally will nevertheless do well to confer in committee on wage rates; only it does not by this act alone lay *all* its cards on the table, and the contagion of the example of other plants is sure to increase the demand for this among employees.

In a company which wants to approximate a "sound" procedure on payment, there should be a selection in conference of certain of the relevant factors enumerated earlier in

[1] Application of this idea under collective bargaining conditions will be subsequently referred to. Our assumption that jobs and wages are being defined on the basis of the individual shop by no means indicates that we think this to be the most desirable method. It happens to be a widely prevalent method, and we therefore consider it at length despite its obvious limitations.

the chapter, and a clear, common understanding of effective fiscal policies.

A separation of decisions about work from decisions about pay is here advocated—even though, as is possible, the two committees are composed of practically the same personnel. A difference in function is thus recognized; and this difference is destined to give rise in time to a much more healthy attitude toward fair work amounts than now prevails. If work can be considered honestly by itself first, and then pay considered in relation to it, there will be an incalculable gain. The tendency to soldier on the job when only pay is specified can under the right conditions give way to a condition where both sides, knowing quite accurately how much work can safely be done from every point of view, agree also on the pay which is fair for that amount of work.

This procedure of basing payment on production standards adds a legitimate financial incentive to the various non-financial incentives considered in Chap. XIV; but it is added in a way which protects the basic interests of both sides at every point. The danger of rate-cutting, of over-speeding, and strain is largely removed where joint supervision of work amounts exists, and the one serious danger which remains must be frankly faced and shouldered by both sides together—the danger of unemployment due to increased output per worker or as a consequence of changes in production process. There is no use ignoring this contingency. As long as the man who is thrown out of work by any such cause is in danger of having to walk the streets looking for employment, the individual worker and the organized workers have a real grievance against the industry and against society. Some adequate and honorable method of compensating anyone thus involuntarily made idle is a necessary condition of a humane industrial system.

Indeed, it is hardly too much to say that the best results are not to be obtained from the use of incentive payment plans, unless and until there is some provision either for guaranteed employment or partially guaranteed payment during defined periods of unemployment. Enough actual cases exist today where the two are together in use to warrant the assertion that usually the best results accompany their simultaneous introduction.[1]

[1] Note, for example, the provisions in the men's clothing industry in Chicago, the women's clothing industry in Cleveland, and the Dennison Manufacturing Company described more fully in Chap. XVIII.

Fixing Wage Rates.—Proceeding now to the more detailed consideration of the process of wage-setting at a specific job,[1] this takes up the discussion of negotiation at the point where the statement of production standards was completed (Chap. XVIII). If, then, it is assumed that there are to be several classes of jobs, the task of the wage committee is to fix hourly or weekly wage rates for each of the agreed classifications. This may also involve

[1] A similar method is employed by the Western Electric Company, which has been described as follows:

"A very important part of any incentive plan is, we believe, the establishment of basic labor grades upon which the piece rates are set. Having this in mind, we have set up a basic grade for every operation performed in our plant. These basic labor grades are established so that they will be comparable with the rates of pay prevailing throughout the Chicago district for similar classes of work, and result in the piecework earnings of an average operator being somewhat higher than the wages paid to daywork operators in the local district. Considerable importance is attached to keeping these grades on a proper basis with one another in our own plant and with the outside market so that the earnings of unskilled, semi-skilled, and skilled operators will be in line with their training and experience. In this way we control to a large extent the very unsatisfactory condition of having unskilled operators earn more money on piecework than skilled operators. The basic grades are divided into steps ranging from a minimum to a maximum valuation for each grade of work, and are used by the employment bureau for hiring purposes and by the operating foremen in making their recommendations for periodic increases in rates of pay of the operators."

From "Extra Incentive Wage Plans Used by the Hawthorne Works of the Western Electric Company, Inc.," an address by Stanley S. Holmes, presented at the A. M. A. Production Executives' Conference, Chicago, May, 1925.

The method of the Westinghouse Electric & Manufacturing Co. is described below:

"Carrying out this idea standard names or occupations were selected for the various kinds of work. Five classes of work were established to cover all the work in the industry, the qualifications of each class being different, depending upon the qualifications and skill required to perform the various kinds of work. A definite range of rates was allowed for each class of work so that all employees rated in the same class would be receiving practically the same rate. The range of rates allowed for each class conformed very closely with the prevailing rates being paid for occupations which had been placed in that particular class. (No attempt will be made at this time to explain the details of this work.) The five classes of work established were A, B, C, D, and E."

From "The Standard Time Wage System of the Westinghouse Electric & Manufacturing Co.," an address by H. W. Arlin, presented at the A. M. A. Production Executives' Conference, Chicago, May, 1925.

agreement upon two or three rates of pay within each class. These rates will be determined, as already said, in relation to an agreed number of factors.

In a given plant, the classification might, for example, relate to hourly rates of pay somewhat as follows:

Class	Wage Rates
A	$.90–$1.25
B	.76– .89
C	.60– .75
D	.50– .59
E	.40– .49

At jobs where the payment is virtually on a "point" basis (presently described), it is more usually the case that a given job carries with it one hourly rate, fixed in relation to the class into which the job is found to be grouped. The above schedule of a minimum and maximum rate for a class is thus an arrangement more applicable to jobs where it is not practical to measure and pay by quantity of work done.

With regard to specific details of payment methods where the work is repetitive, it is possible to state a number of increasingly common elements of procedure. The first of these, and the next step after the classification and grouping of jobs, is the fixing of production standards; *i.e.*, determination of the amount of work at each job which should be done in a given unit of time by workers at that job.[1]

[1] A similar but slightly different basis is utilized by the Westinghouse Electric & Manufacturing Co.

"Standard time is best defined as the time required by an average operator, working under normal conditions, to perform a certain piece of work. By an average operator we mean an operator who has been on the job long enough to learn the job and to perform it efficiently.

"The fundamentals of the Standard Time System of Wage Payment are:

1. Correct time values representing the time in which work should be done by an average operator under average or normal conditions.

2. A day rate which corresponds in value to the daywork rate being paid for similar jobs in the same community.

3. A standard time rate which exceeds the day rate by a definite percentage.

Under standard time the operator's earnings are calculated as follows: If the operator performs the work within the allowed time, his earnings are equal to the product of the number of standard time hours made and his standard time rate. If the operator fails to meet the allowed time,

The accurate setting of production standards at most types of work requires the use of the familiar procedure of elementary time study made of jobs sub-divided into their constituent elements. This study is wisely and rightly made only after there has been agreement on a standardized, economical practice for the conduct of that job. Reasonable and proper time allowances must be made for rest, personal comfort, etc., in ways now fairly well standardized by the better industrial engineers.

Study of fair amounts of work which can be done is usually made by industrial engineers (1) to find a production standard for the average, normal workers; (2) to set below this a minimum amount of work which will be recognized as that below which the learner and the poor worker may not fall and still retain the job; and (3) the setting of a maximum amount of work beyond which it would be unsafe for the worker's health and safety for him to produce.

The amount of work by which the minimum standard would fall below the normal standard as well as the amount which the maximum would rise above it must be determined by study in each case. In general, it seems to be true that the minimum is allowed to go 15 or 20 per cent below the normal, but the maximum considerably higher than that.

The average worker's production standard in a wage classification where 60 cents is the base rate is, of course, so set that he

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his earnings are equal to the product of the actual time worked in hours and his day rate.

The reaction of the workers toward standard time has been very favorable. As previously mentioned, they are inclined to be suspicious at first, but invariably they practically all have been satisfied, and a great many have become enthusiastic. The workmen were quick to learn that their earnings were not limited, and the incentive to produce was really greater after the time had been met, and so the ultimate result has been a feeling of satisfaction among the workmen.

The management early gained the confidence of the workers by adopting the policy that a standard time value, once set, could not be decreased unless some change in the method of manufacture was effected. This in itself has been an incentive for the operator to produce without fear of being penalized for his efforts. The rate department which bore the brunt of the work of installation has also acted in a follow-up capacity, making any adjustments necessary for the success of the work."

From "The Standard Time Wage System of the Westinghouse Electric & Manufacturing Co.," an address by H. W. Arlin, presented at the A. M. A. Production Executives' Conference, Chicago, May, 1925.

earns approximately 60 cents an hour. If a point system is in use, the amount of work which can be done in a minute is given the value of one point, which would mean under a 60-cent rate that a point would be worth one cent; then for every point (that is, every unit of production) which the worker makes per hour more than 60 he is paid accordingly. If in a given hour he makes 70 points, he is paid 70 cents, and so on. The point system thus offers a convenient and definite method of calculating the individual worker's earnings which is so simple to calculate that the worker knows at the end of each day just what he has earned. The only limit to the rapid worker's earning power is thus the maximum standard which has been fixed. At the bottom of the scale, if a worker constantly falls to the minimum standard or below it, this is a case for further training, discharge, or other special provision. Those producing only occasionally below the normal production standard are usually paid the base rate for the job as a guaranteed minimum.

A further feature of this type of payment plan which is finding increasing favor is this guarantee of the worker's daily base rate regardless of the amount of work done per day. This is on the assumption that the cause of the failure to do the amount of work called for in the production standard is usually not the fault of the worker but of the management, due to failure to provide work, to the breaking down of machinery, to the giving out of work after part of the work day has been expended, or to any other cause. In other words, if the worker is asked by the management actually to start work on any day, it thereby obligates itself to pay the worker's base rate for that day. Such a provision has the merit not only of stabilizing the worker's income, but of putting it squarely up to the management to organize production processes in such a way that a flow of work is assured day by day and hour by hour.

One further indispensable condition of the success of this plan should be understood. There must be a definite assurance given by the management that there will be no rate-cutting as long as the standard practice at a job remains unchanged. Historically, the worker's objection to piecework and all forms of bonus and premium payments has been based on unfortunate experience with persistent rate-cutting.

Payment for Non-repetitive Work.—The problem of fixing a definite pay incentive where the process is not repetitive is more

difficult. Experience shows, however, that the effort (1) to define jobs, (2) to list them in order of importance, and (3) to group them into four or five classes, goes a long way toward supplying the basis for a systematic plan. As suggested above, each class would carry with it a minimum and a maximum rate of pay, and a worker would usually expect to enter a class at its minimum rate. The problem, then, is to find some basis of progression within the class and from class to class so that the worker may feel that a definite line of progress in increased payment is open to him, if he can do the more difficult work. The next question is to determine the basis upon which the individual's progression is to take place within his class, since measurement of the amount of work is in jobs of this type out of the question.

The answer seems to lie in the use of a rating plan. In a number of cases this idea is being successfully applied on the basis of a definitely established procedure for the periodic re-rating of each worker. Under this plan, either at quarterly or half-yearly intervals, the total personal history record of each worker is examined and a decision is reached as to whether he is qualified for an increase to the next higher rank of payment in his class.

The machinery for adjusting these individual ratings as well as the content of the rating plans themselves are still frankly provisional and in an experimental stage. Under some plans, the foreman takes full responsibility for the rating decision; under some others, this rating is done by a conference, including the foreman, an instructor or inspector, and a representative of the personnel department. There is also some experience with a "mutual rating" plan of employees by their fellows. In general, it is safe to say that the more nearly the rating plan can be administered by a group in which the worker's fellows are definitely represented, the better.

Qualities to be rated would differ from case to case, but in general a selection from the following items is often found to be a valuable index to the individual's progress:

Regularity of attendance.

Comparative length of time taken on individual jobs as compared with a comparable previous job.

Saving in the utilization of raw material.

Saving in amount of waste products or number of "seconds" produced.

Length of service.

General character of worker's attitude toward the company.

Interest in his work.

Ability to get on with his foreman and his fellows.

A further point in this connection has to be defined; namely, who finally passes upon advances in wage rates recommended under this periodic rating plan? Present methods range all the way from those where the factory manager or the personnel manager takes full authority to one where the decision comes from a wage committee on which management and men are equally represented.

In other words, under this type of incentive plan each job carries with it a definite minimum and maximum of pay and a definite progression within the class. This progression within a class may be by jumps of as many cents as are agreed in advance to be desirable. It is usually felt, however, that a progression of less than three cents in the hourly rate is so small as not to seem an incentive. The only way under this procedure that a worker can increase his wage over and above the maximum rate which his job carries is to qualify for work in a better-paid class of work and get an opportunity to work at it. The only exception to be noted to this statement is that a company may also elaborate its payment plan by the addition of a system of bonuses given for length of service, or for regularity of attendance, in which way a worker's total pay may be brought above that yielded from the maximum rate specified in the schedule for his particular job.

Indeed, the tendency is increasing to let a job carry its rate or rates of pay and to reward for length of service by a separate and separately paid length-of-service bonus. This is usually an agreed percentage of the weekly wage, and often this percentage increases as the length of employment increases. Thus, a five-year employee may get a 5 per cent bonus for continuous tenure, and a ten-year employee get a 10 per cent bonus. This separation of payment for work done and for years of faithfulness has good arguments in its favor.

Most companies, experience has shown, can safely and profitably work along the lines laid out above, and can to advantage seek to apply the principles summarized in the next paragraph. It would then remain for those companies which desire to go to greater lengths to bring their employees into partnership to work along the lines considered in the next chapter.

Principles to Govern Wage Determination.—The pay for all jobs should be decided by conference in which the workers are represented equally with the management.

The pay should be based on the cost of living, on the quantity of work done, as determined by scientific study, its quality where possible, and any other variable costs over which the worker has control.

The basic wage rates should at least equal those paid for work requiring comparable skill in the same locality, and should at least equal those at similar work elsewhere in the same industry. Preferably there should be a favorable differential.

The worker should be guaranteed against rate-cutting;[1] and preferably there should be either guaranteed employment for so many weeks a year, or unemployment compensation, or at least the valiant attempt to supply regular, steady work.

The pay for the adult man should be fixed on the assumption of his having to support a wife and three children under twelve

[1] See in this connection the carefully thought-out plan of the Western Electric Company, outlined by STANLEY S. HOLMES in an address entitled "Extra Incentive Wage Plans Used by the Hawthorne Works of the Western Electric Company, Inc.," presented at the A. M. A. Production Executives' Conference Chicago, May, 1925:

"*A.* No piecework rate is reduced unless there has been a corresponding reduction in effort as the result of improved methods, improved equipment, or design changes in the article manufactured. High earnings are encouraged at all times.

B. When a reduction in rate is justified, due to changes in method, etc., we set the new rate so that the earnings will be comparable with the earnings under the old rate for like effort.

C. The daywork rate is guaranteed. Regardless of whether or not piecework production is up to standard, the operators are assured at least of a weekly wage equal to their daywork rate.

D. A rigid inspection system which maintains definite standards of quality. Operators are credited only for good work done, unless defectives are beyond their control.

E. An accurate counting, crediting, and payroll organization, to assure that the operators promptly receive full pay.

F. Piece rates are set by men who thoroughly understand the class of work being rated and who are expert time-study men on that particular class of work. We use no clerks for stop-watch studies.

G. When it is found, after reasonable trial, that adequate piecework earnings cannot consistently be realized by the operators on the piece rate which has been established, a thorough investigation is made of the situation, and either the Planning organization must demonstrate that satisfactory earnings can be made, or the rate is revised."

(statistically considered to be the "average family"). The problem of adult women's wages is considered separately at the end of Chap. XXIII.[1]

The management should aim more and more to inform the workers of the financial policies and conditions of the company. The time is sure to come in a period of depression or of a dull market when employees' confidence in facts about the relations of finances to production may be sought in vain, if it has not been sought when times were better.[2]

[1] See DOUGLAS, P. H., "Wages and the Family," Chap. III. The validity of this assumption has been called into question by a number of significant statistical studies showing that the "typical" family is more or less a myth. In the absence of any other widely acceptable criterion, however, the above assumption seems tenable for the present.

[2] A somewhat different but effective statement of principles regarding incentive plans also merits study in this connection.

"1. The plan should guarantee the day or hourly rate. This assures to the management the cooperation of the worker in the introduction and operation of the system and contributes to his confidence. Sub-standard workers will be assured of a living wage, and regular recipients of the bonus can rely on the hourly rate if for some reason they are temporarily unable to reach the standard.

"2. An abrupt break in wages at the point of performance should be avoided as far as possible. Factors not controlled by the workman will frequently appear and cause him to miss just reaching the standard. This failure to make the bonus seems to be one of the most common sources of antagonism on the part of the worker toward the management.

"3. A third principle emphasizes the necessity of adherence on the part of the management to the tasks once they have been set. The past experience of the worker has usually been that the employer will increase the standard of performance if it becomes apparent that the original standard was set too low.

"4. Conditions and methods throughout the shop should be carefully standardized, so that tools will always be ready and in the best condition, and materials moved up to the machine or work place at the proper time in order that there be no delay. Rigid control methods and uniform conditions form a responsibility for the management, particularly in cases where the men are paid for work done; and the cooperation and good will of the men depend upon the extent to which the management assumes this responsibility.

"5. The system should be simple and such that the workman can keep track of the amount of pay he is entitled to receive. Otherwise, unless he has a high degree of confidence in the management, he may feel that his wages are not always correct.

"6. Care should be exercised in getting the bonus percentage. A higher bonus is necessary to provide an incentive for skilled workers than for common laborers. Again, there is danger in overpaying a man as in underpaying him. Absence from work made possible by such overpayment will

Definition of a Fair Wage.—From study of the payment problem a definition of a fair wage which seems to have a clarifying value may now be drawn. The definition makes no attempt to do the impossible. There is no such thing as an "absolutely fair wage." Indeed, the beginning of wisdom regarding the payment problem is to realize that *there are no absolutes to fall back upon.* "A fair day's pay," "a just wage," "equitable distribution,"—*these are all relative terms.* They always have been; they always must be. They mean one thing to one group, something else to another group. They mean one thing today and another tomorrow.

Once managers realize that there are no absolutes in the solution of the payment problem, much of the uneasiness and petulance about wage adjustments will disappear. For it will be realized that each wage problem has to be faced afresh and discussed coolly in the light of the then contemporary facts and forces.

A fair wage is that wage arrived at by the interested parties in conference under conditions of approximately equal bargaining power, where the rate has been fixed in relation to the amount of work agreed upon, all the admittedly relevant facts, circumstances, and active factors being taken into account, and where the rate is thus felt by all to be reasonable, possible, and expedient.

The corporation which accepts this definition of a fair wage and acts upon the few principles just set forth, as many already have, will almost surely find itself facing a situation of greater stability and confidence in wage relationships than is obtainable in any other way.

The Conference Committees.—One further word is necessary about the organization of the committees on job analysis and wages.

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easily disrupt production schedules; inequality of overpayment will give rise to jealousy and ill feeling among the various groups within a plant.

"7. Finally, the plan of wage payment should in some way provide for the older men who have seen long service with the company and yet still may be active. These men possess an intangible value to the concern because of their versatility. Their loyalty to the management is a strong factor in building up the morale of the younger men just making a start. They are, however, in most cases, not able to maintain the pace set by such younger and more vigorous men, and, as a result, some special provision must be made if they are to receive pay commensurate with their worth."

From "Incentive Systems of Wage Payment," *Harvard Business Review*, July, 1924.

There are certain general matters which concern the work of the shop as a whole and the pay of the shop as a whole which will require determination prior to the consideration of individual jobs. The number of hours of work per day and week, for example, and the minimum rate of pay for the shop are matters affecting all workers. Such items are discussed and acted upon in the central shop committee; but usually, in the larger plants, the advantage of at once delegating the special problems relating to work and pay to standing sub-committees will be substantial, since these groups can then become expert on their subjects.

Such details are not mentioned in order to propose a hard and fast system or fixed hierarchy of committees, but as a few simple principles, by way of illustration. It is not only realized but insisted that *it will remain for every company to embody the idea of consultation and agreement upon pay on a basis of a previous definition of work in a way adapted to its special conditions.*

Payment Methods under Collective Agreements.—These suggestions are, moreover, in no way opposed to methods of bargaining with labor unions. If one shop has a collective agreement with the unions, the conferences with the union may be work conferences and then pay conferences. Or, as is more usually the case, the unions and employers can agree upon a machinery which shall be employed to work out the details of adopting production standards, evaluating points, and relating them to agreed hourly rates of pay.

If it is objected that the unions are not prepared to bargain in this way on work and on pay differentials, the answer is that in some cases this is true; but where managers have gone to the unions and asked for joint action on work amounts and pay differentials *on a basis of their own reciprocal promise* (1) not to cut rates, (2) to have joint agreement on production standards, and (3) to institute guaranteed employment or unemployment insurance, there are a number of convincing illustrations that the unions will come more than half way in cooperation.[1] Without these assurances it is not to be expected, or even from a human

[1] Much is already done in this direction under the collective agreements in the garment trades throughout the country, notably in the women's clothing industry in Cleveland, and in the men's clothing industry in Chicago, Rochester, and Baltimore. Usually, in each shop there is a shop committee or a price committee to confer with the management on the local application of the terms of the agreement.

point of view greatly to be desired, that the unions should proceed to great lengths to forward the payment principles here outlined.

It has now been demonstrated that conditions which assure productivity and interest are those of differential pay, of security of livelihood, of joint study for improved process, of joint agreement upon the division of the income, coupled with the use of the non-financial incentives already discussed. If these ends are desirable then the best means to secure them are worthy of serious consideration, and it remains for employers, unions, and employees to agree upon some application of these methods, which it is now widely conceded alone will accomplish the desired results.

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CHAPTER XXIII

PAYMENT PLANS AND METHODS

Companies which have shop committees or agreements with labor organizations have already at hand the representative machinery through which payment problems can be taken up. It is good business to perfect this machinery and even to introduce it where it does not exist.

More and more employers and workers are not satisfied to consider the problem solved when wage rates have been established. They desire to extend in some way the division of the corporate income to the profits. The motives for the introduction of profit sharing are numerous and usually mixed. It is, therefore, particularly important to distinguish at the start between those proposals which are snatched upon by the manager as something of a panacea, and those more carefully considered plans which look toward a genuinely widened basis of income distribution.

The manager who wants quick results will usually find that profit sharing is the last thing he should consider.[1] Excellent critical studies exist of the values and limits of value of various profit-sharing projects; and no firm should embark on such a project without giving these the most careful reading.[2] For the road of profit-sharing is strewn with the wrecks of sanguine beginnings and abandoned hopes.

[1] The following conclusions meet the present writers' approval: "Profit sharing is not a problem to consider first. It is the problem to consider last . . . (it) will not destroy trouble; it may postpone, alleviate, or hush it temporarily, but it will not overcome it, nor will stock sharing, yearly wage dividends, nor memberships in thrift societies. In fact these very good plans may aggravate the employees. The warning is first to put your house in order. The first element of your labor problem is to get your basic system of pay right. Profit sharing is not a basic pay system." BURKHARD, P. L., in *Industrial Management*, vol. 58, pp. 42–45, July, 1919.

[2] See JAMES, GORTON, and others. "Profit Sharing and Stock Ownership for Employees," Harper & Bros., N. Y., 1926. Also, EMMET, BORIS, "Profit Sharing in the United States," United States Bureau of Labor Statistics *Bull.* 208.

Indeed, it may be truthfully said that there is almost no end which profit-sharing contemplates which a management cannot better gain in some other way. There is but one exception to this statement; that is, the firm which has sincerely in view the end of making its workers partners in the control and receipt of income from the business—the firm which does actually want to divide its profits.

It is emphasized, however, that not necessarily is it *advocated* that any one plant proceed to great lengths in profit-sharing. Fundamentally, the profits of one plant are of less significance to the community than the profits of an industry as a whole. Moreover, we see some force in the position of those employers who declared: "We cannot believe that either the proprietors or the workers are entitled to the whole of the surplus profits of the business, though they might reasonably ask for such a share as would give them an interest in its financial prosperity . . . We believe that in equity the community may claim the greater part of surplus profits . . . "[1]

The National Association of Manufacturers has published its position on the matter in the following terms:[2]

> There are three parties at interest in profits:
>
> First, the owner whose capital is invested in, and at the risk of, the business. His rightful share of profits is represented by a rate of dividend proportionate to the risk involved and such reserves as experience has shown must be provided against a rainy day, and for a reasonable expansion of the business.
>
> Second, the employee whose rightful share of profits is represented by a basic wage equal to the prevailing rate and in addition thereto, special compensation scientifically determined and immediately paid for attainment above the average, in the form either of increased production, improved quality, or definite economy.
>
> Third, the consumer whose rightful share of profits is represented by reduced prices which tend to stabilize the business, protect it against undue competition, and provide security to the employer and employee alike.
>
> For the average plant a plan designed to direct the efforts of the workers along lines which will result in definite economies, and therefore increased profits, and then divide with the workers the profit accruing directly from such efforts is, it seems, a safer, more constructive, and in every way a more scientific method than the method of profit sharing.

[1] Industrial Relations Report of the English Friends, *The Survey*, vol. 41, supplement, Nov. 23, 1918.

[2] From letter from the Employment Relations Committee to the membership, Mar. 20, 1926.

The fact remains that individual plants desire to act, and are acting, in the direction of profit sharing. The increase in the number of profit-sharing plans in operation between 1920 and 1926 has been notable. There are probably a little over two hundred companies which have a plan that conforms reasonably well to the usual definition of profit sharing as an agreement fixed beforehand by the terms of which an employer undertakes to share a proportion of net profits among his employees.

This being the case, and since it is believed that there are better and worse ways of developing a policy of profit-sharing, recent experience will be stated which seems to show the socially expedient principles to govern its introduction.

Even when a firm desires to share profits, however, because of a belief that the employees are entitled to a share in them, it seems to us that the mere fact of cash distribution is of secondary importance. The fact of the way in which it is done is the primary factor. Any plan in the field of personnel relations is valuable to the extent that it brings the employees into a closer working knowledge and genuine sense of working unity with the enterprise. Such a sense of cooperation and partnership is not achieved quickly nor easily. It is a psychological growth built up out of a sharing of knowledge and responsibility no less than of ultimate returns. In short, the type of profit sharing which is most advisable is one which in its entire process is most educational to the rank and file.

That is the reason why an approach to profit sharing which is gradual and built upon a sound foundation of joint cooperative action is urged, rather than one which simply entails an arbitrary act of a board of directors done in a spirit of philanthropy.

An Approach to Profit Sharing.—The place to commence with profit sharing is with wage determination in its constituent elements. Wage rates and amounts are factors close to the workers' immediate interests and understanding. To create a structure of representative control over this factor, which, after all, is closely tied up with the other factors which help to create and determine profits, is both logical and educationally sensible. The best service a company can render its employees is to start to increase the fact of partnership at the first point where employees realize they can act as partners, namely, at their own jobs.

At the risk of seeming dogmatic, it is reiterated that the best way is to start with job analysis and the determining of produc-

tion standards and correlative wage rates under joint control. In short, a start should be made with problems surrounding the conduct and improvement of each job; and the attempt should be to build the worker's interest, the worker's knowledge, the worker's sense of responsibility, and the worker's reward up from the place, the outlook, and the reward which he now has.

In carrying forward this process of wage determination, it will be perfectly natural and normal, especially if that is the company's wish, to bring up for joint consideration the financial policies which help to determine the available "wage fund," and to discuss all other relevant factors. In this way, employees will get a knowledge about the financial situation which will show whether the proposed profit sharing is merely a quixotic venture or whether it is developing out of sound beginnings.

It will be objected that this much is not profit sharing. No; it is only the beginning of a joint control over process and over workers' earnings. It may be objected that such control may eventually lead the workers to demand higher wages, which might begin to encroach upon profits. This is not only conceivable but possible. Yet it should be remembered that the management, under the terms of our discussion, has decided that it wants sincerely to share profits; and *if the necessary safeguards are thrown about the procedure of joint conference,* it should logically have no objection to part of its income going in higher employee drawing accounts rather than in profit distribution. These safeguards should be substantial, and they should be kept always to the fore. For example, the fullest possible knowledge about financial affairs must be available as affording a basis for intelligent action. The relation of profits to credits, to extension of plant, to taxes, to wise advance purchases of raw materials should all be taken account of. The effects of getting wages too far out of line with wage rates in other firms would also have to be taken into account.

The value of a plan of this sort is that it develops and uses as fast as it does develop the interest of each worker in the conduct and prosperity of the enterprise. If joint action commences on problems of work and of pay, it can and will, if desired, grow into joint action on larger issues. In this way, as in no other, the worker's relation to production becomes closer and closer; his knowledge constantly increases to match his increasing responsibility; his opportunity to exercise control and responsibility

increases as fast as his desire (and usually faster). He becomes, in actual fact, a partner in the enterprise, and if *under these conditions* he seeks to increase his weekly drawing account, that would probably in many cases be a desirable step.

There would still be, of course, a possibility that workers might desire to increase wages at the expense of reserves and surpluses necessary for use in profitless periods and for extensions of plant. This danger must not be minimized, but it must be remembered that under the conditions assumed the employees *know* that bad years do occur, and that money borrowed of banks costs more than funds drawn from accumulated surplus. It is inherent in the educational value of joint conference that workers come to all this knowledge; and their own native shrewdness is to be counted on quite as much as anyone's.

If the business is a prosperous one when the determination of reasonable weekly wages has been made, there will still be a residuum, an ultimate surplus, after the several fixed charges are met. The company which then desires *to divide the whole or a part of this residuum on some mutually satisfactory basis* will be advancing to what seems to be *as nearly as it can be under existing arrangements* a "sound" policy of profit sharing.

It is necessary to be clear as to how this residuum is reached. For brevity's sake, therefore, conclusions as to the principles underlying this relatively sound profit-sharing plan under existing corporate conditions will be stated categorically.

Certain Principles of Sound Profit Division.—It is a desirable prerequisite that there be prior joint definition of amounts of work and of related amounts of pay.

These amounts of pay might well be considered as drawing accounts throughout the organization.

There should be definite assurances of the continuance of the plan independently of the earnings of a particular year.

There should be joint agreement to the terms of the profit sharing, joint administration of its provisions, and joint consent to changes.

The company finances should be in a sound condition, that is:

(*a*) There should exist a safe and conservative relation between stock values and physical values, as well as between stock values and earning power.

(*b*) Too much money should not be tied up in raw stock or in goods in warehouse.

(*c*) Short-time financing, if needed, should be done as cheaply as possible. If the company could finance current transactions more cheaply by the maintenance of a reasonable amount of surplus, such surplus and such use should be provided for eventually.

(*d*) Plant should be kept in first-class shape as part of current expense. This would apply to the purchase of equipment for renewals, thus making a moderate depreciation charge possible.

There should be agreement upon a stipulated and limited rate dividend. This should be high enough to compensate stockholders so that they will have no further claim on profits.[1]

There should be agreement as to amounts to be set aside to finance extensions, to care for depreciation, to create surplus, to create a sinking fund to be used to pay drawing accounts, unemployment benefits, and minimum dividends in poor years. There is good reason to believe that careful financing of most corporations in good years would make it possible to lay by sufficient funds to help appreciably in sustaining the *active agents* in the business during poor years.

There should be agreement as to a minimum wage, as to the maximum salary, and as to salaries for various grades of executives.

There should be annual accounting of the company's finances by an agreed accountant, and access to the books by an accredited representative of the workers.

Any residuum—ultimate surplus—left after meeting all the above charges in the manner specified might then be divided among the *active agents* in the business.

The basis on which this division takes place seems to be a relative matter on which no absolute principles may be laid down. Many different methods are in use, but perhaps the most common is to divide the agreed sum in proportion to the earnings of the employees. Some plans first divide the residual profits, half to stockholders and half to employees. Others allocate them to managerial employees on a special basis. In individual cases there may be good reason for any one of a number of plans, although it would seem to us that the payment

[1] In the Zeiss Optical Works it is provided that there is a premium to invested capital in payment for the risk, corresponding in amount to the average loss of capital in the industry as a whole over some prescribed period.

to absentee stockholders might well go no further than the agreed dividend.

All this will no doubt seem a larger order, and such it is. It is not set forth here by way of immediate advocacy for every firm. There will be few firms so organized or so disposed, that they can in the near future go far in the direction of these principles; but there are some, there will be more, and there are many others which think they want to share profits. If this discussion will help to clarify their thinking and supply a reasonably wholesome objective, its inclusion here will be amply justified—no matter how utopian it may appear to the managers of the majority of companies.

Stock-purchase Plans.—Recent years have seen a growth in plans for stock purchase by employees even more rapid than that of profit-sharing plans. There are today well over two hundred companies which have some plan for the distribution of stock, and the total volume of wealth in this form which is now in the hands of employees runs literally into the tens of millions of dollars.

These arrangements are of several types, and there is little evidence on which to base a judgment as to their relative advisability.[1] Many companies sell annually an agreed block of stock at a prescribed figure somewhat below the then market rate; usually, an installment payment plan attaches to such schemes. Some companies create a savings fund in which employees' savings are equaled by contributions from the company and the total fund is used for the purchase of company stock in a trust fund. Some employers share profits by giving stock instead of cash. Some companies sell voting, some non-voting stock; some offer preferred, others common shares.

A procedure which has grown so rapidly and widely cannot be dismissed without careful scrutiny. The chief benefits that are claimed for it are that (1) it gives employees a legal right to a share in profits; (2) it gives a sense of part-ownership, and thus fosters morale; (3) it reduces unrest, instability, and labor turnover; (4) it increases employees' earnings and purchasing power; (5) it gives momentum to an educational influence among employees regarding the financial condition of their company. That a large number of companies have felt that one or more

[1] An excellent analysis of current plans is to be found in the address of B. A. Bowers before the American Management Association annual convention of 1926.

of these benefits was realized is indicated by their continuance of the plan year after year when a revocation of it might easily have been made.

The dangers and difficulties, on the other hand, are important to realize. (1) The employees tend to have all savings tied up with one company—an unsound principle of investment. (2) The employees cannot afford to take the speculative chances of sudden fluctuations in share values. (3) They may feel that they are unduly tied down to one company unless the terms of stock resale and liquidation are simple and liberal. (4) They may feel that the financial policies and accounting practices of the company are not honest, or that they are not taken sufficiently into the confidence of the management. (5) They may be misled as to the extent of influence they can have in ultimate control due to their holding a relatively small percentage of stock, or due to their holding non-voting shares.

In view of these opposed benefits and dangers, the only safe conclusion is that a stock-purchase plan to be of lasting value in the personnel policy of a company must be conceived with the utmost care. Only those plans which try to provide against the obvious dangers can expect to prove valuable.

Elements of Sound Procedure.—What, then, should be the elements in a good stock-purchase plan?

(1) In some way assurance should be given that the individual employee has prior to his subscribing to stock a permanently held liquid fund of $200 or $300 in cash in a savings bank or building and loan association, where it is available for emergencies.

(2) No company should sell stock to its employees if its executives are playing the stock market with its shares rather than tending to the business of manufacturing and selling; or if its financial policy and structure are not sound and conservative.

(3) Companies in which the speculative element in the demand for their product is still large should go slowly with stock sale to employees.

(4) Preferably, the shares sold to employees should carry voting rights. There are good arguments for the sale of either preferred or common shares, although the latter has the advantage of allowing employees a share in the ultimate equity in the business.

(5) Assuming that the employee stock is voting stock, there would be real value in encouraging the stockholding employees to organize in some way to vote their stock in a solid block.

(6) Liberal provision should be made for compulsory re-purchase of voting stock by the company when an employee leaves; or for return of his partly paid principal with interest at a specified rate.

(7) An objective which some companies are progressively working toward as desirable is one where the active agents in the corporation are encouraged to become the largest single group of stock owners. The non-resident, non-working owners are guaranteed a fixed return on their investment, and are, in certain cases, being gradually bought out.

Stock ownership by employees, like profit-sharing, offers no primrose path to industrial peace and harmony. It is nevertheless true that both of these have implicitly in view a common aim, which is of great importance. Both procedures say, in effect, to the workers that their right is recognized to a return from the company employing them over and above the obligation discharged in the payment of weekly wages. Whether or not managers have put it that way to themselves, this is what happens in effect when either of these plans is introduced in good faith. Undoubtedly some plan for giving employees a contingent interest in their company is an idea which is destined to gain in favor.

It is also true that both procedures tend to a bringing together and harmonizing of certain interests heretofore opposed. To the extent that employees are substantially participating in profits or dividends, to that extent their interests regarding distributing the profits are at one with those of other owners. Usually, though, at the present time, their immediate interests as wage earners are or should be more dominant than their interests as owners.

In so far as stock ownership is a device which utilizes already available legal instruments, that is perhaps in its favor, and it seems not unlikely that out of the present widespread experimentation with various forms of employee stockholding, some suggestions eventually may come as to ways of organizing and conducting corporations which square more fully than is now the case with democratic principles of organization and control. It is thus difficult to make any categorical statement regarding the use of profit sharing or stock purchase by employees. Both have possible benefits and possible drawbacks. Administered by an enlightened management in an intelligent way, either might yield valuable results in improved morale. Stock ownership in

some form may work out into a method of employee participation in ownership and direction which will be sound psychologically and economically.

The warning should be that beyond a certain point it is not possible to deal fundamentally with the problem of income distribution until it is looked at from the point of view of an entire industry. This is not said to discourage individual company experiments which are well conceived, but the fact is that from the point of view of ultimate economic statesmanship, the labor and fiscal problems of the marginal plants have to be solved no less than those of the low-cost, prosperous companies which regularly have large profits to divide.

Payment Procedure.—There are a number of details about the procedure of "paying off" to which attention should be called, since this procedure can occasion a good deal of petty irritation unless it is wisely handled. What experience has usually shown to be best practice on these matters is stated below

It is desirable to pay off on company time.

It is desirable to pay off as rapidly as possible. This may be accomplished in various ways; as, *e.g.*, by having different pay days for different departments, or by taking the pay envelopes directly to each department.

It is desirable to pay up to as near the day of payment as bookkeeping arrangements permit. It should usually be possible to pay, for example, on Saturday up to the previous Wednesday. The practice of withholding a full week's pay is unnecessarily rigorous. Some states have laws governing the amount of pay which may be withheld, and the frequency of payment. Usually a weekly settlement is to be preferred.

It is essential to provide a place and person to whom the workers may go to secure adjustments of pay errors. Foreign workers have been seen to come to the grated pay window to get a payment trouble straightened out, and receive the most brusque, abrupt, and inconsiderate treatment at the hands of a young clerk. This sort of occurrence is unnecessary; yet it contributes not a little to a natural feeling of resentment on the part of every self-respecting worker. It must be remembered that pay errors are often the company's mistakes; but whether they are or not, they may occasion annoyance out of all proportion to their seriousness; hence, the importance of an *attitude of courteous, quick, and willing attention* on the part of the pay adjuster. Indeed, in large

corporations these mistakes and misunderstandings become so numerous with the similarity and confusion of foreign names and with foreign workers coming and going, that the pay adjuster either should have some facility in the necessary foreign languages or have access to sympathetic interpreters.

There should also be a well-understood procedure as to paying off those who are absent on pay day. Regular hours of the pay adjuster's time should be available for this necessary service throughout the week.

It is now necessary to keep a record of workers' yearly earnings for income tax purposes. This information is also valuable to the personnel department—indeed it has more real significance than hourly or weekly rates. For this reason, posting wage totals quarterly on the employees' record card which contains the other facts about his history, progress, etc. is recommended. In this way the employment manager can readily tell amounts of yearly income.

If the company pays by check, it is desirable to provide a place where these checks may be cashed. On the whole it is probably better to pay in cash.

It is desirable to withhold no money from the pay envelope for fines, dues, loans, savings, grocery bills at company stores, rentals in company houses, etc. This may seem a comparatively trivial point; yet it has real psychological importance. The worker ought to know where his earnings go; and there is no way he can know certainly unless he makes all payments in cash himself. Often this may involve drawing money out at one window and paying it in at another. That makes no difference; *the important thing is for the worker to handle all his own financial affairs.*[1]

It is desirable to have provisions for advancing a few days' wages to new employees who are at the end of their resources when they are taken on. Not a few workers, especially those of the more itinerant type, will leave after a couple of days in order to get cash enough in hand to keep them going. If an advance on wages were given, their stay would be more permanent. Some companies have arrangements with boarding houses to accommodate such new workers on the company's credit for the first week.

It is desirable to pay off discharged employees as promptly as possible. Frequently this cannot be arranged for on the day

[1] There may be an exception to this statement in the case of the collection of union dues under a definite provision in the collective agreement; and perhaps the payments to contributory group insurance.

of discharge, but it can be arranged for on the following day. It is unduly arbitrary and usually very inconvenient to the discharged worker to have his payment delayed until the next pay day.

It is important to protect employees against loan sharks and assignments of wages. The company, or preferably the employees' association, should have a loan fund, and upon receipt of notice of wage assignment see the assignor, make an immediate adjustment (on the threat, if necessary, of legal proceedings if a settlement is not made), and make arrangements with the employee to carry the obligation in some other way.

It is important to have a definite policy about payment for absences when they are due to sickness, and for vacations. It is customary on both items to have one policy for the office force and another for the factory force. There seems, however, no reason for not adhering to a single standard for payment—a standard approximating the present usual practice with office employees; namely, continued regular payment during sickness (or accident) of a few day's duration after which provision is made for compensation out of a benefit or compensation fund; and payment for a two-weeks vacation for every employee who has been with the company one year. From the point of view of good hygiene and mutual good will, the provision of an annual vacation with pay promises to pay for itself many times over.

Policies about overtime, Sunday, and holiday pay should also be clearly established. Since the usually accredited theory has been to pay for extra work in a way that will induce employers to keep it at a minimum, adherence to the standard now fairly well established where organized labor is recognized is favored. This standard calls for time-and-a-half pay for overtime work, and usually double pay for Sunday and holiday work.

The practices regarding differentials in pay for night work vary from payment of a bonus of a certain percentage of the day rate, to no differential at all.

Women's Wages.—The United States Government during the war and organized labor for some time past have favored the principle of "equal pay for equal work." Definition of the principle and its precise application are, however, a difficult matter.

It is, therefore, useful to examine this idea and see what it may mean. "Equal pay" may mean equal piece rates, in which case,

if women's hours are legally shorter than men's, they earn less. It may mean equal hourly rates, in which case, if their hours are less, they also earn less. It may mean equal weekly wages or monthly salaries, that is, equal income.

Several different conditions have grown up as to women's pay. There are jobs, such as cotton weaving, where men and women are employed interchangeably. In these cases, whether a piece-rate system or a flat weekly rate obtains, it is usually felt that a condition of equality exists.

There are other jobs which have customarily been done by women. Certain work in box and candy factories, garment shops, telephone exchanges, etc. has always been done by girls and women and paid for at a rate that no man would think of working for. It is for the aid of women in trades of this sort that minimum-wage legislation is designed. It may be said fairly that the concept of equal pay has never been applied in these cases. The assumption in these cases here is that the adult woman is single and without dependents, and the pay, even when fixed under minimum-wage laws, is fixed accordingly.

Finally, there is the work formerly done by men for which women are now employed. When taken on for such work as operating elevators, feeding and operating machines, inspection work, and hotel dining-room service, women are usually paid less per hour than the men whose places they have taken.

It is always said, of course, that the women do not do the same work; that modifications have to be made on the job to make it possible to use them. Yet if, for example, a woman only feeds a machine, whereas the man at the job used also to bring and remove his materials, the important fact to determine is the unit costs under the two different methods. The woman who only feeds the machine may (and probably does) turn out many more units of output, and the wage of a male helper or trucker who supplies not only her but a number of other women with material is likely to be much more than compensated for by the total increase of output. But there will be cases where the women's work is not the same; and determination of pay will in these cases have to be made accordingly.

It seems, therefore, that if interpreted according to the spirit and not the letter, equal pay for equal work means *that the fact that adult women are doing the work is not to alter in any way the basis on which pay shall be determined.*

It is here assumed that adult women have dependents. Recent studies indicate this to be true of a majority of women over twenty-four or twenty-five years old. The wage problem is, of course, different with both boys and girls until their twenty-first year. Wages for the worker up to that age may be safely set on the assumption that the worker is a single person with no dependents.

Foremen's Salaries.—Efforts to determine foremen's salaries give rise to further practical questions. First, shall the foreman get more income than the most highly paid piece worker in the department? No categorical answer to this is possible; but it is held here that the foreman should be one (or if he is not, he should be educated so that he is one) whose value to the company as an executive, as a leader and dynamic force in his department is large enough to warrant paying him well above the amounts earned by any of those under him. A prominent executive of the International Harvester Company has said recently that his company is attempting to develop a group of foremen whom it would be justified in paying $5000 a year.

Corporations demur at paying foremen well, because they fail to see their importance and because they do not recognize that ability for foremanship is different and more rare than ability for manual work. Once the thought that foremen are executives gains currency, any doubts about paying them more than the best-paid workers are likely to be less frequently raised.

In some cases foremen are paid a bonus if the production of their department exceeds a certain figure, or if unit costs are kept below a certain amount. Such devices may in some cases be necessary to create in the foreman a willingness to do his job properly; on the other hand they have sometimes proved too great an incentive to an unwholesome driving and speeding of the workers in his department.

The thing to do is to pay an adequate salary and pursue a program of foremen's education which will insure that each foreman knows his duties and is interested to carry them out.

There is a good deal to be said for profit sharing with foremen, and the sale of stock to them. In both of these ways the foremen are recognized definitely in the final results of the year's business, and this is as it should be.

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CHAPTER XXIV

MEETING THE INDUSTRIAL RISKS

Accidents, occupational diseases, and unemployment are risks more directly incident to industrial work than general sickness, old age, and death. All are contingencies which everyone in industry faces, and all stand as big causes of anxiety and dread in the working-class family unless some specific provision against them has been made. They are peculiarly the cause of fear and worry when wages are near the margin of subsistence.

Recognition of this in recent years has led to the extensive development of plans of various types to meet these exigencies both by employers, by self-organized groups of workers, by labor unions, and by commercial insurance companies. An increasing economic security has thus been a serious objective of different groups for different motives, and the result has been a gratifying extension of protective measures of proved worth and permanent benefit.

The Method of Insurance.—Society today uses the ingenious device of insurance to distribute its familiar risks in such a way that all can help to bear them and all be helped when they are in need. The major problem in meeting the industrial risks is to use the form of insurance which gives the best protection. This involves questions as to the size of the group which should undertake the insurance, the basis of selecting the risks, the amounts of premiums and benefits, the degree of compulsion to be exercised within the group, the basis of sharing the premium payments. These and all the actuarial problems entailed are in part technical questions which it is beyond the scope of this volume to elaborate. It will be useful, however, to state certain general points which should be considered in relation to all insurance plans, to consider briefly the different kinds of risks which must be met and give warning as to the kinds of problems to which the introduction and administration of each give rise.

General Principles.—Up to a certain point the larger the groups over which the burden of risk may be distributed, the

smaller will be the charge upon every participant, assuming the charge is based upon actuarial principles.

Since actuarial advice is essential if any insurance measure is to be soundly framed, it will pay to consult a good independent consulting actuary after the plan has been roughly sketched out, and to get all possible help in creating one that will not be bankrupted by the first heavy claims which may be made on it.

Insurance plans of all sorts should be as simple as possible in respect to methods of paying premiums, securing benefits, and complying with all the conditions under which the worker becomes eligible.

Payments of benefits should be made promptly without the necessity for the intervention of any third party.

The insurance is most effective if all members of an exposed group are participants. Where the participation is compulsory, however, there should be provision either for immediate refund of his deposited principal with interest to the worker who leaves, or for transfer of the insurance to his account in his new employment.

Administration of the actual disbursement of insurance benefits should rest as far as possible in the hands of those who are in sufficiently close touch with the affected worker to know definitely when he should be a beneficiary.

Accident Insurance.—Forty-two states, including practically all the industrial states, have workmen's compensation laws. The procedure under these several laws varies widely, and it holds true of compensation insurance laws, as of most other legal labor standards, that they represent minimum and not the maximum desirable requirements.

The humanly desirable standards over and above the legal requirements which any plant may well adopt are: No waiting period if the disability extends over one week; payment of at least 75 or 80 per cent of, if not full, wages during period of actual recovery; provision of adequate free medical attention; recognition that since diseases contracted because of occupational hazards create the same liability as accidents, compensation for such diseases shall be on the same basis as accidents.

Where long delays in the decision and settlement occur, there may result real hardship in the family of the injured worker; and in anxiety he may even resort, unnecessarily, to a lawyer to help his case along. Managers should accept the responsibility of

making clear to the workers that lawyers are usually not necessary; and should make provision for advancing funds against the payment of the compensation by the state or insurance company.

In those states where no legal provisions for accident insurance exist, the enlightened management which sees the value of "casting out fear," will adopt voluntarily the standards of compensation of the advanced states.

Health Insurance.—Mutual benefit associations have constituted the first organized step taken by many firms to meet the incidence of sickness upon their employees. A variety of methods exists among the several hundred of these associations, but there are outstanding features of the movement which may be considered summarily.

There is wide agreement that membership in benefit associations should be voluntary.[1] This means, however, that much thought should be given to advertising the plan and enlisting as nearly as possible 100 per cent membership. On this point one expert has said:

> The association is in the business of selling insurance; it must have a proposition which can be readily sold to the employees. We were able to show them some of the psychological features of the proposition, not through a definite study of psychology, but by bringing them to see the effect on prospective members of certain methods of procedure. One point that was kept forcibly in mind continuously was this—the entire plan of reorganization must be above suspicion. There must be nothing about it which would permit the suggestion, by those of perverted mind, that the corporation had any motive other than the best interests of the employees. All decisions were to be made by the employees. We took pains to place before them, however, all the facts, both for and against each proposition on which they were to

[1] The following is taken from National Industrial Conference Board Research *Report*, 65, "Experience with Mutual Benefit Associations in the United States," p. 5:

"Voluntary membership is generally preferred by both employer and employees to compulsory membership. Compulsory membership makes for greater stability of funds than a purely voluntary association, because the latter tends to include chiefly those who feel the need of provision, and so makes for an unfavorable selection of risks. Compulsory membership, moreover, brings within an association the thriftless type of individual who will not voluntarily make provision for the future. These advantages, however, are usually more than counterbalanced by the lack of interest and enthusiasm which may characterize the attitude of the members toward a compulsory association."

ballot, so that they were benefited by the experience and judgment of those who had experience in insurance matters, sales promotion, and in addition, the facilities for securing information.[1]

Associations should be administered cooperatively.

A joint management secures the counsel of the officers of the corporation and the interest, enthusiasm, and experience of the employees; thus the organization is operated for the best interests and secures the greatest enthusiasm of all concerned.[2]

It is advisable, because of the added confidence and prestige among employees that accrues to associations managed entirely by themselves, and because of the training which employees obtain in the administration of such organizations, that company participation in administration be confined to a minimum. The company can best serve the association by standing ready to consult and advise with the employee officers at any time and furnish them whatever assistance is possible.[3]

The expenses of benefit associations appear to be satisfactorily handled when the employees' premiums are high enough to meet the actual benefits paid, and when the company pays whatever administration overhead is necessary, with perhaps bonuses to members for increasing the enrolment in the society. Fundamentally, however, it seems to us that the principle of joint contribution is sounder, especially since the conditions of employment for which the corporation is responsible influence the sickness rate.

The method of regular weekly dues of a fixed amount is generally recognized as sound, and Mr. Chandler found that with dues of 10 cents per week the fund, under ordinary conditions, may pay each sick worker $1 a day after the third day of sickness for a period not to exceed 13 weeks. "If it was desired to extend these benefits as long as disability continued, it would be necessary to add only 2 cents per week per member."[4]

For the addition of 2.5 cents a week to the premium, he finds also that a death benefit of approximately $100 can safely be paid for members dying of sickness.

[1] CHANDLER, W. L., "Conclusions From a Survey of Over 500 Employees' Benefit Associations," U. S. *Bull.* of Labor, 227, pp. 158–167.

[2] CHANDLER, W. L., *Op. cit.*

[3] From National Industrial Conference Board, *Op. cit.*, p. 8.

[4] CHANDLER, W. L., *Op. cit.*, p. 164.

These figures of the relation of cost to benefits are given, it should be understood, only by way of illustrating the relative proportion which premiums must bear to compensation. At the present price level benefits of $1 a day while better than nothing, are wholly inadequate to meet the needs of workers in a period of sickness. Benefits of double this amount come nearer to a desirable amount, and if, as is possible, larger benefits require a premium which the employee feels is too high for him to pay, his contribution must be supplemented.

Experience suggests that a more equitable arrangement would be to relate both dues and benefits to the average weekly earnings of the members, and to classify membership as well as dues and benefits on this basis. In order to discourage malingering, benefits may be restricted to a certain percentage of wages, 50, 66⅔, or 75 per cent as may be deemed advisable.[1]

A typical benefit plan sets forth its essential provisions in the following terms:

Benefits to take effect on the fourth working day after sickness or injuries. Benefits not to exceed 13 weeks in a calendar year. In all cases of sickness or injuries, the secretary of the association must be notified in writing at once, or claims for benefits will not be allowed.

No member shall be entitled to benefits for any sickness or injury which shall have been caused or brought about by the use of intoxicating liquors or opiates, or by immoral conduct, and no member having a chronic disease or ailment previous to joining the association shall be entitled to benefits for disability therefrom.

The president shall, on all such cases brought to the attention of the secretary, appoint a sick or visiting committee, consisting of three members, or, if a nurse is employed by the company, of four members, one of whom shall be the nurse.[2]

An interesting variant on the mutual benefit association idea is employed in Massachusetts in connection with the plan of "savings bank life insurance" which operates in that state. Approximately sixty mutual benefit societies, including about sixteen thousand employees, are organized under this plan, which combines typically a $10 a week sickness benefit and a $500 death benefit. The cost of this is 15 cents a week dues per employee,

[1] National Industrial Conference Board, *Op. cit.*, p. 9.

[2] Tewksbury, W. J., Helping Workers to Help Themselves, *Factory*, August, 1919.

plus 15 cents a week contribution from the employer. Plans including lesser amounts of sickness and death benefit carry proportionately smaller contributions. Under this scheme the mutual benefit association handles the collection of money and the payment of benefits, and a stipulated sum is paid to the savings bank life insurance fund to cover the death benefit payment which it meets.

Group Insurance.—The remarkable recent extension of the sale of group insurance policies by commercial insurance companies to factories and stores raises a question as to the comparative merits of the group insurance policy and mutual benefit association. On this point the following evidence of a careful research study is of interest, and it tends to confirm our own estimate of the alternatives.

The evidence suggests that it is questionable whether there is sufficient distribution of the risk, except in the larger plants, to enable a mutual benefit association which is not reinsured in a commercial insurance company to operate on a sound financial basis. In a small plant, the death or protracted illness of but a few members may place such a strain upon the treasury of the association that it may be forced to suspend payment of benefits or experience other financial difficulties. The schedule of benefits, if it is to be adequate, is so much out of proportion to the income that can be derived from reasonable dues and assessments of members that the association is apt at times to be in a perilous financial condition, and to fail the members when they most need its protection . . . If it is desired to organize a mutual benefit association which will be financed by employer and employees, experience shows it to be the better policy, except in the larger plants, that death benefits be provided through a group life contract with a commercial insurance company. The sick and disability benefits may be financed within the plant. In many instances, employers who provide life insurance for their employees have made this insurance dependent upon membership in the mutual benefit association. This plan, rather than the provision of life insurance for all employees, is favored on the theory that a man more appreciates a thing that he has helped to pay for than something that is given to him for nothing. On the other side, there has to be considered the fact that such an arrangement does not provide protection for all workers in the plant.

In plants employing several thousand workers the risk is apparently sufficiently distributed to furnish a sound basis for the operation of mutual benefit associations which are not reinsured. In such associations the difference between the schedule of benefits and the assured

income from the dues and assessments of members is generally not such as to imperil the financial standing of the organizations.

Irrespective of the size of the plant in which it functions, a mutual benefit association, to be solvent, must have a reserve fund of a sufficient amount to meet all benefit claims that may be made upon it. A great majority of mutual benefit associations which are not insured do not fulfill this requirement—an elementary principle of insurance. Insurance companies, on the other hand, are compelled by law to maintain reserves of sufficient amount to meet all possible claims. From this standpoint, therefore, the association in which payment of benefits is guaranteed by an insurance company offers a much greater degree of security or protection to its members than the association which is not insured.[1]

Today over three million employees are covered by group insurance policies carried for the most part in half a dozen large companies, and an increasing proportion of these employees are being covered not only for death but for sickness as well. Indeed, the methods of group insurance have changed materially since the first policies were written. A form of policy which is becoming increasingly popular is one which entails joint contributions of employer and employee and is administered, in part at least, through a mutual benefit association.

Such a policy will only be written where there are at least fifty employees. It covers life, accident, and sickness. It operates only if 75 per cent of the employees acquiesce in the plan and agree to the reduction of their share of the premium from their pay. There are no physical examinations.

A typical plan of this sort provides a $1000 life insurance policy or an equivalent monthly total and permanent disability benefit of 20 months. It provides a 10 weeks per year benefit for sickness or non-occupational accident. One such plan costs the employees 20 cents per week, the balance of the payment being made by the company.

It will be seen that these terms are distinctly more favorable than is possible for the individual buying similar insurance for himself. Also, under a group insurance policy there is a definite motive for both the insurance company and the employer to do all that is possible to prevent sickness and shorten its duration. The insurance company's nursing service should thus play an important part in the effective administration of the plan.

[1] "Experience with Mutual Benefit Associations in the United States," Research *Report*, 65, National Industrial Conference Board, pp. 44–45, New York, 1923.

Labor Union Insurance.—A further form of working-class protection against death which promises to increase in volume is the newly organized Union Labor Life Insurance Company. This is a company organized to sell life insurance to all persons irrespective of their trade union affiliations. The advantage which is held out is not one of saving in the lower premium rate, but rather a share in the dividends, since the stockholders' return is limited to 6 per cent, and all surplus above that is distributed to policy holders. There is every reason to suppose that this company will grow rapidly in the next few years and provide life insurance for some tens of thousands of manual workers, principally in the organized trades.

Old-age Pensions.—The problem of old-age pensions is a thorny one; it bristles with difficulties. Shall the pension be contributory or non-contributory? Who is to determine the employees' eligibility? Does a striking employee cease by that fact from employment? Does the individual employee who leaves have any moral claim upon any part of the fund?

It is impossible within the scope of this discussion to suggest the answers being made to all these questions; but the fact that pension plans are extending in number,[1] and that more and more companies desire to put the retirement of their older employees on a definite and explicit basis makes important an appreciation of all the complex factors in the problem. One recent and thorough study of industrial pensions is quoted extensively as follows in order to present the major considerations which require decision in instituting and operating a plan:

> The purposes pursued by employers in establishing service pension systems for superannuated employees are various and complex. Often, the objective conditions and circumstances that move employers generally to act in this matter are only partially revealed in their avowed purposes, and may not even be consciously apprehended. Thus it may be that the encroachments of labor organizations upon the competitive labor market demand some counter-attraction on the part of the employer to retain the full loyalty of his working force and the power of replenishing it. It may be, too, that the pressure of world-wide competition in the major industries and the consequent drive for reduced costs compel the tuning up to its maximum efficiency of every factor, human as well as mechanical. Any marked slackening of productivity at one point in the

[1] The National Industrial Conference Board reported late in 1925 the existence of 268 formal plans including over 2,800,000 employees.

organization is quickly communicated to an entire department and impedes its operation throughout. The employer may become aware of or have called to his attention the declining powers of some superannuated employees here or there, whom he may be too fair-minded to discharge outright, as he would scrap obsolete machinery or defective material in his plant. Nor, on the other hand, may he be able long to continue them on the payroll either at their accustomed work or at some lesser job, without productive detriment. Moved by humane considerations as well as by stern business necessity, the employer would welcome a procedure for dealing constructively with this problem.

Such a procedure is at hand in the form of a retirement pension system, which enables the employer to compensate the aged employee for his fidelity to the job while at the same time easing the process of retirement and replacement. In making his decision to adopt a pension scheme, the employer is confronted with several different types of arrangement among which to choose. His choice will be determined by the peculiar circumstances of his situation and by the purposes paramount in his mind. At one extreme he has the alternate of an informal policy of relief or emergency allowances. At the other, he has open to him a formal plan with guaranteed benefits, operated in accordance with regulations definitely laid down in advance. The schemes found in actual operation range all the way from the one type to the other. At one extreme, pensions disappear and are replaced by charitable doles; at the other they merge into insurance.

The charitable approach to the problem has its definite limitations and drawbacks, especially for the large employer. Responsible as he is in the first instance to the stockholders of the corporation, he is ordinarily not free to indulge his personal inclinations and sympathies in dealing with the needs of individual workers. All his administrative acts must be governed by strict business principles. His contact with the thousands of men and women under his direction is necessarily remote and impersonal, while charity, to be effective, must be essentially personal. The attempt to combine the one with the other may easily result in favoritism, arbitrary discrimination, and paternalistic interference with personal liberty.

There are, to be sure, offsetting advantages, chiefly as regards cost and considerations of exact justice, that commend this method to many employers. Under certain conditions and in relatively small businesses, these may outweigh the disadvantages. At the other end of the scale, the quasi-automatic method likewise has its favorable and unfavorable features. But the balance cannot be struck alike for all or in a hard and fast manner. It depends upon the purposes to be served and upon the particular situations to be met. The era of experimentation is by no means over, though certain technical points relating to pension finance

have already been established with certainty. The question of the relative merits of various pension systems is complex.

Industrial pension plans, generally speaking, have for their ultimate purpose the improvement of industrial relations. Employers who institute such plans pursue a variety of aims, some of which are circumstantial and arise from special conditions in the establishment or from the attitude of individual employers, while others are more fundamental and run through the whole pension movement. Specifically, by promising a measure of security from want in old age to employees who will devote the best years of their working lives to the service of one employer, a service pension is calculated to encourage such continuity and constancy in employment. If it proves in any marked degree effective in reducing turnover to a healthy minimum, in stabilizing the working force, in stimulating loyalty and efficiency, and in creating contentment and good will among the employees, it is an excellent investment and an asset to the business. If in addition a pension system affords the employer a definite, as well as humane, method for retiring superannuated employees, it also justifies its cost as an aid to management. Elimination of ineffective workers by the pension route is well adapted to raise the level of efficiency in the active force. It clears the way of promotion for younger employees, while favorably affecting the morale of the entire organization. Like any other sound policy in personnel administration, the pension must rest upon an adequate relation of "give and take." It is to be thought of at the same time as a reward and an incentive. In rewarding the faithful service of those employees who are retired, it is intended to strengthen the disposition to such service in those who remain.

Employers who have given thought to their experience with pension systems are not unanimous in their conclusions as to the success of such experience. While many express unqualified satisfaction with the results of their scheme, others are more or less dubious of their value, and still others regard them as definitely disappointing. Where the effects of a pension system have fallen short of expectations, it has sometimes been due to an underrating of the costs and sometimes to an oversanguine conception of the possibilities of such a scheme. Many pension plans have been established without adequate knowledge of the financial obligations entailed thereby and benefits have been fixed irrespective of the funds available for paying them. In a number of cases the consequence has been an unforeseen increase in the pension roll and sooner or later, embarrassing demands upon the corporation's income. The employer then has been confronted with the painful alternative of increasing annual appropriations on account of pensions or curtailing the number and amount of allowances granted or to be granted. The choice is painful, because increased pension disbursements cut into profits while, on the

other hand, the existing rates of allowance are frequently so small as not to bear further reduction.

The advantages derived by a business enterprise from the operation of a pension plan are not easy to measure, and the divergent estimates are at least partly subjective. On one side are the claims of those employers who attribute to their schemes the realization of all their expectations. They report a decided improvement in loyalty of the force, a lowering of the turnover rate, a raising of the quality of the labor force, greater facility in retiring incapacitated employees, enhanced efficiency within the plant and good will in the community at large. Over against these expressions of endorsement must be set the adverse judgment of other employers, who have been less fortunate in their experience with pension plans. Their complaint frequently centers in the fact that the younger men fail to show due appreciation of the beneficent provision made for them, while the older ones are not in need of such inducement to long service. Besides, the existence of the plan has not been found by these employers visibly to strengthen the loyalty of employees during industrial disputes. A third group of employers take an intermediate position. Without setting up definite expectations, they are willing to regard their pension schemes frankly in the light of an experiment, in the hope that in time these may yield a net gain in organization morale or a similar tangible benefit to the corporation.[1]

A critic of private pension plans has the following to say about the limitations upon the value of pensions from the point of view of sound personnel policy:

Whether or not it is deliberately intended, most industrial pension rules are so drawn as to make possible very serious limitations on the rights and freedom of action of the employees. The importance of this fact is not materially lessened by the probability that the exceptional power thus given the employer is seldom exercised. Although the employee has no rights, under the plans most generally prevailing, either to a job, or to a pension, or to the continuance of payments once the pension has been awarded, it is altogether likely, as a matter of practice, that he is not denied any of these things. Only one case has ever come to the attention of the writer where such rules were utilized to coerce the employees.

As a man grows older in the service, the pension becomes more and more of a club in the hands of the employer with which to enforce "loyalty" and subservience. Suppose the retirement age is sixty-five and the service required is twenty years; a man sixty years old who has been fifteen years in the service will hesitate before protesting against

[1] This is quoted with permission from "Industrial Pensions in the United States," National Industrial Conference Board, Inc., New York, 1925.

shop conditions that need remedying. He is not likely to be active in the union, and if there is discussion of a strike, he is likely to be against it. There is a barrier of only five years that separates him from retirement and provision for his old age. Even if he negotiates those years in safety and finds himself upon the pension roll, in many cases he is still without his freedom. He is a pensioner and dependent; he dare not speak his mind freely lest he be guilty of "misconduct" and the stipend which keeps him from the poorhouse be taken away.[1]

Fortunately, there has now been devised a new type of pension, the annuity plan, which seems to meet most of the objections raised above. This plan has been well set forth in a recent study as follows:

The disadvantages of the pension system are so great, in the opinion of many, that efforts have been made to find a substitute which shall avoid its drawbacks and yet retain the advantage of aiding the employee to avoid destitution in old age. The plan which seems to have won most favor is the purchase of an annuity for each employee, payments being made for each individually each year, and each account being kept separate from all others. The annuity is to be purchased through some well-established insurance company, and its cash surrender value naturally increases with each year for which payments are made. The employer may bear the whole cost, or the employee may be required to contribute. The plan may be optional or obligatory for the individual employee, he may have a right to the cash surrender value of the policy at any time, or may be unable to realize anything from it until he reaches the age at which the annuity is to begin, or other variations may be introduced.

The outstanding advantages of the plan are that it puts the whole matter on a business basis, instead of making it a matter of the employer's liberality; that it is fair to the employees as among themselves, since each receives his own amount, and one who leaves the employment before retirement gets back what he has earned by his period of service instead of having contributed for the benefit of those who remain; that it gives the worker a contractual instead of only a moral right, so that he may plan his future with more assurance; that it cannot be used, as the pension system may, for disciplinary purposes; and that, since the annuity is written by a strong insurance company, even the employer's failure or withdrawal from business does not affect the worker's surety. From the employer's standpoint, it secures the great advantage of a pension system in that it enables him to retire employees who are becoming less efficient, without undue hardship to them, while at the

[1] Fitch, John A., "For Value Received: A Discussion of Industrial Pensions," *The Survey*, pp. 223–224, May 25, 1918.

same time it enables him to calculate his costs accurately, and it involves him in no future obligations. The payments of each year are a complete transaction, and if at any time he should find it necessary to give up the system, each worker would still receive the full benefit of all payments made on his account up to that time. In other words, there is no pension fund which must be maintained unless old employees are to be disappointed in their legitimate expectations, and which may come to grief if the employer fails, dies, or retires. Moreover, it meets the complaint that the pension is really deferred pay, which the man who withdraws before reaching retiring age never gets, since every worker under such a plan gets his own deferred pay, his return being greater or less as his period of service varies.

Several companies have already adopted this general plan, their systems varying in several points. As an example, one of these may be given in some detail. The plan first provides that any employee may notify the company of his intention to apply to a designated insurance company for an "independence monthly income bond," and may authorize the company to allot from his salary any sum, not less than $5 a month, toward the purchase of this bond. The company will thereafter duplicate the amount of the employee's allotment, up to 5, 7½, or 10 per cent of his salary, depending upon his length of service. The plan then continues:

"The amount allotted from the salary, together with the company's addition thereto, will be handed you monthly on the fifteenth, in the form of a check to the order of the insurance company. At the end of each quarter you will forward the checks thus received to the insurance company, in payment of the quarterly installment then due on your bond.

"At your option, any amount up to one-half of the checks issued to you may be applied to the purchase from the insurance company of any form of endowment insurance, the dividends on which shall be allowed to accumulate as long as this company's contributions continue.

"The insurance company will issue to you upon application and without medical examination (unless disability feature is desired) an independence monthly income bond, embracing the following features:

"(*a*) Monthly income payable to you, commencing at the age of 65 (or other age, if you prefer), and continuing for life.

"(*b*) In the event of your death before the monthly income commences, your benficiary will receive in one payment an amount equal to the combined payments made by you and this company, after deducting the cost of the disability feature.

"(*c*) In the event of your death after the monthly income has commenced, but before 120 monthly payments have been made, your beneficiary will receive the balance of 120 payments. Monthly income is thus payable for 10 years in any event, and as much longer as you may live.

"(*d*) In the event of permanent total disability (if medical examination has been submitted to with satisfactory results) all further payments by you will cease, and your monthly income will commence at once, and continue as long as you live.

"(*e*) After the contract has been in force 1 year, it will have cash surrender or loan values comparable with those shown in the accompanying table.

"(*f*) Upon reaching the age of 65 (or other selected age) you will have the option of receiving a lump sum instead of the monthly income.

"(*g*) All dividends on the contract shall be allowed to accumulate as long as this company's contributions continue.

"The bond above described will be issued to you directly by the insurance company. It becomes your property and all amounts contributed thereto by this company are irrecoverable.

"In the event of the termination of your employment by this company, the bond may be continued by you at its full amount, or it may be reduced in amount to offset the loss of the company's further contributions, or it may be canceled, and its cash surrender value withdrawn by you, or it may be converted into a paid-up annuity.

"At your option, the amount of the bond may be increased or reduced at any time; or the age at which the monthly income payments to you will commence may be altered if you wish."

It is evident that this use of the annuity principle avoids most of the objections urged against pension systems, and that it is adaptable to varying conditions. In theory such plans are highly approved by many students of the subject, but as yet there is little experience showing how they stand the test of actual working.[1]

In conclusion, the point should be raised that from the public point of view there are distinct limits upon the benefits to be gained from company pensions. This in no way detracts from the benefits derived from existing plans. Fundamentally, old age is not an industrial risk; it is a human risk; and if the facts show the need for supplying adequate income to large groups in the population after their sixty-fifth year, it would seem that a general public provision must be made for this destitution. Only in this way will it be possible to meet the needs of those most likely to require income in their old age; namely, those who have shifted frequently from company to company, and those who have been employed in small companies. It may prove to be desirable to combine a public pension plan with supplementary

[1] Conyngton, Mary, "Industrial Pensions for Old Age and Disability," *Monthly Labor Review*, pp. 54–56, U. S. Department of Labor, January, 1926.

corporation plans which increase the income of the superannuated worker.

Savings Funds.—One way to help meet industrial risks and domestic emergencies among employees is to encourage the organization of savings funds. Regular provisions for laying aside a stated amount, or any amount, per week have been greatly stimulated in many companies as a result of encouraging experience with various forms of systematic savings during the war. The great thing seems to be to get the habit of regular saving instilled and to provide convenient easy, and regular opportunities for setting money aside.

Some companies even go so far as to contribute to such funds sums equalling employee deposits. Some companies apply the savings to the purchase of company securities. Some create a trust fund of savings which are then invested in the company's own securities. Some simply offer facilities for depositing money which is held in a local savings bank.

Whatever method is found to fit a company's needs, the necessity for an educational campaign in the thrift habit will remain. Most people need to have it explained to them that they can make even a modest capital fund yield them a return in interest and in a sense of security which becomes progressively valuable.[1] Also, educational work may be undertaken profitably to assure that where money accumulates into sums much larger than those which workers are accustomed to handling, they do not dissipate these amounts in foolish ways. This problem arises, for example, with Christmas Clubs and at the end of a period of installment paying for securities, the market value of which may have increased substantially since the employee started to buy.

One special form of saving organization which is gaining in popularity is the credit union, the organization of which may well be encouraged by managers. A credit union is a cooperative organization designed both to promote the thrift of its members and to provide them with facilities for small loans. It differs from a building and loan association largely in the size of the amounts involved both in regular savings and in loans. The funds are accumulated by the issuance of shares paid for either in cash or regular weekly or monthly installments. These installments

[1] See in this connection the methods set forth by SCHNEDLER, W. A., "How to Get Ahead Financially," New York, 1926.

are usually for 10, 25, or 50 cents per week. Loans are made at low rates of interest, repayable on weekly or monthly installments, and are subject to such conditions as regards security as are stipulated by the rules of the credit union and its loan committee.[1]

At present, there are nearly 100 credit unions in Massachusetts alone, with nearly 50,000 members, including the employees of some of the largest and best-known manufacturers, public utilities, and post offices. There are also laws authorizing the organization of credit unions in twenty-four states. The benefits of such a mutual organization for saving on a small scale and for providing the opportunity for small loans can readily be seen.

For those in a position to save on a somewhat larger scale, the facilities of a building and loan association are to be preferred, since larger amounts are assembled and encouragement, therefore, can be given to the building of homes.

Public Health Insurance.—There remains to consider, as a means of meeting the sickness hazards, the kind of public health insurance which has been in successful use in England since 1911 and which has been made the basis for somewhat similar legislation proposed in recent years in some of our own industrial states.

Briefly, the plan of this insurance is to require the insuring of practically all industrial workers, on a basis of contributions made weekly, 40 per cent by the employer, 50 per cent by the employee, and 10 per cent by the state. The amount of the employee's contribution would probably approximate 25 cents a week.

In return for these payments, benefits of a certain percentage of wages (probably two-thirds, with a minimum of $5, and a maximum of perhaps $8, a week) for 26 weeks, free medical and hospital service, maternity benefits, and a death benefit of not more than $100 would be provided; the administration of the benefits to be through local groups on an industrial or geographic basis.

Inasmuch as existing statistics of sickness show that each worker in this country averages in the neighborhood of nine days of sickness per year, and since sickness is a major cause of destitution, there is good reason for considering some way of compensating for sickness which is universal and independent of the

[1] For fuller treatment of this subject see BERENGREN, R. F., "Cooperative Banking," New York, 1923.

forethought of the individual corporation or its employees. Despite the objections urged against it from various points of view, it is possible that public health insurance along lines already embodied in proposed bills would meet the test of universal coverage of normal workers better than any other method which would have any reasonable likelihood of adoption. It would certainly do one invaluable service. In a dramatic way, it would call attention to the amount and cost of sickness at present. Thus it would lead to the more vigorous preventive measures of public, industrial, and personal hygiene which the community otherwise is so slow to adopt.

It may turn out, however, that industrial health work, group, insurance policies, and mutual benefit association plans will in the next few years supply coverage for such a large fraction of the wage-earning population that there will be no widespread demand for public health insurance. If industry in and of itself could carry this entire burden, there should be no objection to such a development. The difficulty is that with this sort of autonomous growth there would be so many workers in small and unprogressive plants who would never be protected.

Unemployment Compensation.—Application of the insurance idea to unemployment has been relatively slow in coming, in part because of the frightful irregularity of industrial employment in the last 50 years and the consequent high cost of adequate insurance. England has a national unemployment insurance which is constructed along lines similar to its health insurance; and there are other types of public unemployment benefits on the continent. Also, although something has been done by the labor unions in Europe in the way of paying out-of-work benefits to idle members, in this country such union provisions are confined to a few organizations totaling less than 30,000 members.[1]

Apart from these, practical attempts to pay workers who are unwillingly unemployed have only been experimented with in the United States in the last 5 years.

These developments have followed one of three lines: (1) companies have guaranteed work for so many weeks a year or on an annual salary basis; (2) companies have appropriated

[1] See GADSBY, MARGARET, "Steadying the Workers' Income," *Monthly Labor Review*, U. S. Department of Labor, p. 81, August, 1924. This article gives an admirable account of all experiments up to that time in various forms of unemployment insurance.

money out of surplus for use in paying part wages during enforced idleness; (3) companies and unions have joined in the creation of a fund from which payments are made on agreed terms to idle workers.

The Procter and Gamble Company, soap manufacturers, adopted the first plan, in 1923, and guaranteed "full pay for full-time work for not less than 48 weeks in each calendar year." After two years' experience, the president of the company announced that the result of this guarantee had been a reduction in labor turnover for all causes to less than 1 per cent a month or about 10 per cent a year, which is almost half what it might otherwise be expected to be.

The Columbia Conserve Company of Indianapolis hires its regular employees by the year, and assures them a steady weekly income for 52 weeks.[1]

The joint plans for unemployment compensation in the garment trades all guarantee a specified number of weeks' work per year, failing which payments are made out of the fund.[2]

The Dennison Manufacturing Company, the Deering Milliken Company (operating a total of five cotton mills and bleacheries), and the Leeds, Northrup Company are examples of companies which have set up an unemployment fund. Although the detailed provisions vary from plan to plan, the following account of the procedure of the Dennison Manufacturing Company will give a good idea of one carefully conceived method:

> The Directors of the Company have set aside from the profits of the business an Unemployment Fund. The working out of the administration of this fund was placed in the hands of a special committee, consisting of two representatives of the employees and two from the management.
>
> This committee, in drafting the rules governing the use of the Fund, gave to the term "unemployment" a broad interpretation, not regarding total or even partial idleness as necessary in order to establish unemployment within the intent of the Fund, but regarding any loss involved by the inability of a willing worker to continue employment at his normal

[1] For a full account of the various personnel activities undertaken by this company see Douglas, Paul H., "The Columbia Conserve Company, A Unique Experiment in Industrial Democracy," Chicago, 1925.

[2] The Crocker-McElwain Company also offers to place selected employees of 5 years' standing on the salary roll to receive income regularly provided the worker fulfills certain conditions important among which is the company's "insistence upon the continuation of the principle of the open shop."

and qualified duties while being retained on the books of the Company as an unemployment loss.

The actual laying-off of any employee is avoided wherever possible by temporarily transferring those for whom there is no work to other parts of the plant where there is work. If this results in a materially lowered wage rate, it is recognized as constituting a basis for a claim upon the Unemployment Fund. Employees, regardless of length of service, are paid for all unemployment of one-half day or over.

Employees who are temporarily laid off receive 80 per cent of their regular wages if they have dependents and 60 per cent if they have no dependents. Both classes of employees, when they secure temporary work outside, are entitled to an amount equal to 10 per cent of their outside earnings plus 90 per cent of their earnings with the Dennison Company, the Unemployment Fund being used to make up the difference between this amount and what they receive outside.

Employees who are transferred inside to other work are paid their full wages if they are time workers and 90 per cent of a 6 weeks' average if pieceworkers. Whatever they are worth on their new job is charged to operating expenses and the rest is made up out of the Unemployment Fund.

At any time after 6 days' payments have been made, the Unemployment Fund Committee may stop payments to any employees who, in its opinion, are not making proper efforts to secure outside work.[1]

Joint plans of employers and labor unions for administering unemployment payments are operative on both the joint contributory basis and on the basis of the employer bearing the entire cost.[2] The plans are alike in offering inducements to employers to reduce unemployment by rebating or reducing premiums if they offer employment in excess of a specified number of weeks. The average cost appears to run not over 5 per cent of the payroll. Many employers have succeeded in smoothing out the curve of irregular work to a point where the payments have been reduced to a nominal amount. Under one type of plan no reserve is built up from year to year. Under what seems the better thought out arrangement a true insurance basis of accumulated reserves is used.

The final common element in all three types of approach to this problem is the emphasis upon prevention of idleness. Cam-

[1] *Law and Labor*, p. 236, August, 1922.

[2] It is estimated that over 130,000 workers are protected by such plans. They are operative in two local markets of the men's clothing industry, two in the women's clothing industry, four in the cloth, hat, and cap industry, two in the lace industry, and scattered agreements in the wall-paper industry.

paigns to regularize work[1] have preceded and accompanied the introduction of almost all these compensation plans, and have met with marked success. Indeed, half the value of such measures lies in their preventive achievements, and certainly in this direction the hopes of all have been realized to a remarkable degree. The conclusion is thus justified that unemployment compensation on some basis or other is practical for industry today. An extension of such funds may be looked for in the near future.

These autonomous provisions, of course, will not cover all employees of an industry. There will undoubtedly still be need from the social point of view of some sort of public plan which will be obligatory in its operation upon all employers and workers. The type of proposal under consideration in Wisconsin (the so-called Huber Bill) represents one seemingly possible application of the compensation idea to American conditions. This proposal draws heavily on the analogy of the accepted accident compensation legislation, and requires either company funds for large concerns or mutual funds by industries with differentials in premiums depending upon the amount of the individual employer's unemployment.

Conclusion.—The problem of the proper protection of all the manual workers in the community against the risks of sickness, unemployment, old age, and death is not an easy one to meet. At present the community is not disposed to organize the sharing of risks for any of these exigencies in a public way except in the field of industrial accidents. The extent to which it will be agreed to be public policy in the immediate future to embark upon public plans for protection against these risks is debatable, both from the point of view of policy and from the point of view of detailed method.

Meanwhile, everything that honorably may be done to afford protection against these hazards to as many manual workers as possible is a gain. Every encouragement should be offered to the carrying on of new experiments with different methods of handling these risks. For this reason everything is to be gained by advocating such experiments as those now going forward, provided always they are protected by competent actuarial advice and honest administration.

Nevertheless, there is a danger that these measures, scattered as they necessarily are in occasional plants, will be used as argu-

[1] Discussed further in Chap. XXVI.

ments against the need of public provision for all manual employees against these hazards if and when it is widely recognized that all manual workers should be thus protected. Ultimately, whether or not industry bears the burden of sickness, unemployment, and old age by direct levy in insurance premiums or by indirect levy through taxation seems less important than that the coverage be made all-inclusive as soon as possible.

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CHAPTER XXV

COORDINATION OF STAFF AND LINE DEPARTMENTS

It is the purpose of this chapter to consider how policies and plans are best *adopted, transmitted, interpreted, and executed.* By "policy" in this connection is meant a defined objective for an organization or department of an organization which governs the plans to be followed in realizing it. Especially are we concerned to see how personnel policies and methods, or the policies and methods of other departments, where they are affected with a human interest, are "put across." The problem is to find effective ways of inter-departmental coordination; to see how the ideas of staff experts may be made to function in the line departments; to see how the several staff experts can work in harmony and not at cross-purposes—can work with prior understanding of a common aim.

The attempt effectively to achieve this coordination involves a study of organized relationships among five distinct groups viewed both horizontally and vertically. The groups concerned are the board of directors, the board of managers, *i.e.*, the staff department heads and general executives, the line department heads (foremen); the workers within each staff department, and the workers within each line department (the rank and file). The question arises: How is policy best adopted, transmitted, interpreted, and executed from one executive level to another and within each level? The objective is that all the time everyone shall *know in advance* what the organization as a whole is trying to do and what is expected of each department and individual in working to realize that aim. Provision of some sort and procedure of some kind have to exist to assure this dissemination and carrying out of policy; otherwise no work would be done. The problem is to get this done in the best way possible.

To simplify the discussion and emphasize the principles involved, a relatively simple type of executive organization is discussed by way of illustration. The application of the suggestions of this chapter to a more complex organization can then be readily made.

The several ways in which policy might be transmitted are (1) by fiat; (2) by announcement, after taking advice; (3) by conference, agreement, and announcement.

The trouble with the first method is that it is psychologically defective. It fails to understand the causal connection between an individual's willing cooperation and his knowledge of "reasons why."

The second method has the advantage of arousing thought by raising questions and seeking opinions and then not bothering necessarily to show why the advice is not followed. Psychologically, however, it is a step in advance of giving fiats, because those who are ordered are, in part at least, forewarned as to the probable orders which are to be issued.

The third method squares most fully with what is known about the way to get action and cooperation from people. Human beings work most determinedly and effectively on behalf of an objective when they know what they are after, why they are after it, and how they are working to achieve it. Knowledge is a positive stimulant to applied action.

The Principle Underlying Sound Coordination.—This conclusion has already been affirmed in other chapters. Indeed, in the political field it has become a truism that *every special interest directly affected by decisions concerning the operation of any enterprise or function should be a party to the making of those decisions.* That this principle has its industrial application is being proved by experience and by common sense, both of which confirm the following conclusions: (1) that a new policy is likely to be permanently wise and reasonable if those whom it affects help to shape it; (2) that the transmission of policy to the affected parties takes place most naturally when those parties or their delegates are present when the policy is adopted, know its implications and the reasons for its adoption, and hence can interpret it to their fellows; (3) that the policy when so adopted, transmitted, and interpreted has a much better chance of intelligent, willing, and thorough execution than if it is handed down as a fiat from the management.

Convinced that experience has shown the validity of the conclusion that group interests require representation in order to assure sound industrial executive action, we shall in this chapter indicate how that principle should be applied. Those who feel that in the plan of group coordination here suggested the fore-

men and the manual workers are given too prominent a place are asked to remember what has already been said about the psychologically close relation between knowledge, willing consent, and action. They should also remember that some over-organization at times may be necessary in order to assure the explicit recognition of functions and relationships.

Any one plan of assuring coordination, however, is emphatically less important than attaining the end; and there is undoubtedly wide room for experiment here. The fact remains that in its essential outline the following structural scheme has been worked out in whole or in part because of a need felt both in factories and stores. Nevertheless, the rapidity with which it may be advisable to extend the powers of foremen and manual workers depends upon the individual case. An objective, and not necessarily the speed of the process of reaching it, is being discussed.

The Determination of General Policy.—It is assumed here that the Board of Directors is not directly active in determining any but the most general policies. For example, it would usually pass upon such matters as the institution of a personnel department, the establishment of a shop committee plan, the acceptance of collective bargaining, and the like. When the directors are really in close touch with plant or store conditions, there is warrant for taking these large questions of policy to it; but on all lesser matters a sounder decision is generally reached if action is taken by the group presently described as the "operating committee."

It is further assumed that the president of the corporation is at the same time a member *ex officio* of the board of directors and the executive chief of the factory or store organization. Immediately associated with him there will be four major staff executives—the personnel manager, production manager, sales manager, and financial executive. For the determination of general operating policy, this group of five would constitute the nucleus of an operating committee.

The extent to which additions to this group would be advisable depends on the size of the plant, the character of the product, and the desire of the management to perfect its managerial technique in the direction of that representation of interests which is the really scientific method of organization. In fulfillment of this principle of representation, it seems to us essential that there

be added to the membership of this committee one representative of the foremen and two of the manual workers. The operating committee is to consider, it should be remembered, all questions of a general nature, especially issues which affect the relation of one staff department to another, and of the staff to the line departments. In other words, it is making decisions that affect all five of the groups involved. Since this is the case, the reasons for representing all five groups are apparent. All learn of contemplated general policies before they are adopted; all have a chance to express an opinion about them in advance; all help to decide upon their adoption; and all must cooperate in giving them effect. By securing a representation of the several groups in the coordinating body of policy determination the threefold problem is carried a long way toward a solution. For this body not alone decides policy; its members transmit it to their respective groups and secure assent to it. The execution of general policies which are favorably received is then entrusted, of course, to the appropriate executive department and official.

The operating committee would meet at least weekly; indeed, in some plants it has a daily morning conference. Its membership, if it conforms to the above suggestions, will be as follows:

The chief executive
The production manager
The personnel manager
The sales manager
The treasurer
The foremen's representative
The workers' representatives.

The Personnel Committee.—Beyond deciding on major issues of basic policy in personnel affairs, the board of directors usually allows considerable latitude to the operating committee in the determining of ordinary questions. The initiation of changes and the injection of new ideas in this field are, however, in a number of well-managed plants and stores, the responsibility of a personnel committee. Its function is to propose policies and to advise with the personnel executive about ways and means of giving effect to new plans. Its work is wholly consultative and advisory; executive responsibility remains with the usual line or staff officials.

The composition of this personnel committee should be somewhat as follows:

The personnel manager (chairman)
The production manager
The assistant personnel manager
The foremen's representative
The workers' representatives.

This committee usually meets at least weekly; and in many organizations it keeps a written record of its decisions, turning over to the personnel department the actual administrative work mapped out.

The value of this committee has been found to be great as a "selling" medium. The entire content of personnel work is peculiarly in need of sympathetic understanding by foremen and manual workers if its efforts are to bear real fruit. This committee constitutes a *liaison* body where all matters of personnel procedure may be taken up *in advance* of installation and of serious operating difficulties. Thus the importance of having this group as widely representative as possible cannot be too strongly urged.

Board of Personnel Directors.—Within each staff department lies a further field for common understanding and agreement upon policy and procedure. In the personnel department the need for a united stand and a human point of view is clear. For this reason, it has been found useful in most personnel departments comprising more than two or three workers to have a definite organization within the department. This assures regular conference between the personnel chief and his executives on employment, health, safety, training, research, service, and joint relations; and secures the benefit of the interchange of technical ideas and of the wholesome expert criticism of department colleagues. This group is referred to in Chart IV as the Board of Personnel Directors; but in practice it goes under various titles. So closely does the work of this board touch upon the interests of foremen and workers that there is a manifest advantage both from an administrative and an educational point of view in having representatives of these two groups present at the meetings of this group. In plants where there is an employees' association which has its own executive secretary, he would also be a logical member of this board.

Some personnel managers carry this idea of departmental organization one step further and have a monthly meeting of the entire personnel staff, including stenographers and messenger boys, in which a definitely educational purpose is held in view. The potential values of this idea are great, especially when the personnel manager realizes the importance of cultivating a right attitude throughout the personnel staff.

Foremen's Council.—The work of executing personnel policy devolves only in part upon the staff of the personnel department. Many if not most personnel problems closely affect the foremen and depend primarily upon them for successful execution. This is one vital reason why we urge that a representative of the foremen be on the operating committee, on the personnel committee, and even on the board of personnel directors. In their relation to the production department there will be other bodies on which the foremen may be represented profitably. There is for all of these purposes need of a foremen's group which can focus the opinion of these executives and delegate individual members to the various requisite committees. All the foremen of line departments constitute in many plants a foremen's council; or, if this involves the creation of an unwieldy body, the foremen of each administrative division of related departments should compose a number of such councils.

This organization has as one of its major functions to consider new projects which the operating committee or some one of the staff departments is proposing for adoption. Its work, of course, would be advisory in this connection; but it would perform the indispensable service of making clear, through the foremen's delegates to the several committees here described, the position of the foremen on any moot question.

Employee Groups.—How would changes in personnel policy be taken up with the manual workers? Representation of the workers on the operating committee, personnel committee, and the board of personnel directors already has been provided for. Where there is a shop committee or employees' association, the presumption is that the employee delegates to the managerial committees will report all proceedings and decisions back to the organization of the employees.

Where no employee organizations exist, the difficulty of establishing any interchange of group views is obvious. One of the cogent reasons, indeed, for some plan of employee representa-

tion is to provide an agency through which this important work of transmitting, interpreting, and carrying out policies among the rank and file can be accomplished. In so far as any matters of policy under advisement relate to work or pay, earlier chapters have suggested representative agencies through which their consideration would normally proceed.

There is, in short, definite need of an organization of the manual workers with whom the management may advise about policy; and which may, if joint relations have progressed that far with a grant of power to employees, select delegates who can join in the actual work of deciding policies in conference.

Managements should be constantly alive to the serious danger of a gulf developing between employee delegates and the workers themselves. The delegates, in consequence of the educational influences of their committee work and because of the closer touch with all the facts which their committee action brings, almost unconsciously come to take a more responsible and thus often a different view of problems from the rank and file.

Recognizing the seriousness of this problem, a number of companies undertake a definite educational "drive" addressed to all the rank and file on important questions which arise. They utilize various media including department meetings, mass meetings, bulletins, pay envelope notices, house organs, etc. Occasionally to get a complete expression of employee opinion on some issue where their cooperation is especially sought, it may be valuable to use a secret ballot referendum.

The foregoing discussion may now be summarized as follows; and it should be remembered that the suggestions here offered about coordinating personnel policy may be applied with equal force to secure the best possible introduction of staff policies. We suggest that in the adoption, transmission, interpretation, and execution of policy, five groups must be taken into account—boards of directors, major staff and operating executives, the members of the staff departments (*e.g.*, personnel department sub-executives), the foremen, the rank and file. There should be an inter-group conference organization of a representative character at each of these levels, and there should be a group organization within each group. Only thus is it assured that a new policy never comes to any group as a surprise. It is first proposed, then discussed, then adopted by the inter-group conferences; and thus at every stage the affected groups are brought into

council. The adopted policy is then interpreted to each group organization.

Determination of Production Policies.—Because production policies and plans so often affect the working force directly, there are sound reasons for organizing their adoption and transmission in a manner similar to that just considered in relation to the personnel department. This requires the creation of a production committee, the nucleus of which is as follows:

The production manager (chairman)
The personnel manager
The assistant production manager
The foremen's representative
The workers' representatives.

Depending upon the technical character of the production problems, such other executives as the head of the planning department, the chief engineer, the chief chemist, etc. may also be members.

It is the function of this committee to advise with the production manager about methods of putting all new production policies into effect—the executive power remaining, of course, with the production head.

It is important to give at least one example of the direction in which this committee would work. For this purpose we shall consider the function of planning work. Many plants have a special staff department (called variously planning department, methods department, efficiency department, etc.) to which is assigned the function of studying to map out, route, schedule, and improve methods of production. This work of planning and study will benefit by the advice and suggestions of the foremen, of the personnel department; especially on its research side, and of the workers to be affected by proposed changes. None of the planning department's important proposals should be adopted before these three groups have considered and approved them. Since these several groups should be represented on the production committee, it will be desirable to have this committee pass on the planning department's really significant proposals. Indeed, more than that is needed.

Experience with the difficulties that planning department work has encountered in the past leads one to urge that any important and basic change in working methods which affects most of the

shop should be laid by the planning department first before the operating committee, and if endorsed by it, before the foremen's council and the shop committee of the workers.

There should be in short, an organized basis for agreement on basic changes in method (whether they proceed from the planning department or from any other source) between staff and line departments, among line departments, and with workers. Any organization which ignores this problem of scientific correlation of authority, knowledge, and action is bound to encounter obstacles which could have been met in advance.

Determination of Sales Policy.—In the type of organization which this chapter assumes, general sales policies and plans would be decided in the operating committee. How drastic a proposal that is may not be at first appreciated, for many firms are still unconscious of the extent to which they allow the sales organization to dictate to the rest or the management. If the salesman can get the orders, it formerly has been true that the shop will be turned on end, if necessary, to fill them. If he cannot get them, the rest of the organization sits by paralyzed.

The point of view about the selling policy which is increasingly recognized as sound is at almost the other extreme from this. The sales force is being called upon to sell what the production force can make. This certainly comes nearer to a sensible relationship of sales to production than the arrangement now so frequently met.

The best aim, however, is to get executive agreement in advance through the operating committeee on the selling policy to be followed. The ideal is that *no one staff department should be in supreme control*, but that all should agree on general policies in the entire field of operation.

The personnel manager will naturally use his influence and knowledge in the operating committee to oppose a sales policy which spells irregular work, rush orders, overtime work, small-lot orders, etc. He may at first be alone in urging a policy of regularization, but he is soon likely to win support for his advocacy of regularized production from the production manager, foreman, and workers. For it becomes obvious to these groups, once it is pointed out to them, that on all such matters as changes in styles and specifications, decisions about amounts of finished goods to be kept on hand, quality, and amount of goods that can be delivered on certain dates, they should be consulted.

Their influence is normally a stabilizing one. The adoption of selling plans which take account of this desire for standardization then devolves upon the selling staff. They will find, as the next chapter indicates, an appreciable body of suggestive experience already at hand to help in devising a sales policy which regularizes orders and simplifies style changes.

Determination of Financial Policies.—Policies which affect the balance sheet are likely to work back and influence the payroll, and perhaps other elements in the personnel procedure. However, until recently it has usually been considered that the financial end of the business was justifiably a law unto itself, answerable for its decisions only to those "on the inside." A change in this attitude is now discernible, however, due to income tax and corporation tax laws, and to the need and difficulty of securing additional capital, unless financial policies and conditions are publicly known. Also, the increasing use of shop committees, of profit sharing, and of plans for sale of stock to employees almost inevitably entails the consideration of fiscal policies with employees.

Companies should realize, therefore, how intimately connected with personnel policies their financial policies are. Indeed, many managers have already found the benefits in employees' confidence and sense of security which their increased knowledge of financial policy brings. Companies have deliberately popularized their annual reports and financial statements, and done everything possible to visualize to employees the essential facts of their financial position.[1] Instead of assuming, as in the old days, that the amount of profits was only the concern of the stockholders, these companies are realizing that it is related to the problem of the employees' attitude, interest, and loyalty.

The General Electric Company has developed a plan of making clear its financial and operating policies to its workers. Through the employees' magazine and by means of illustrated lectures, in which charts, diagrams, and tables are thrown on the screen and explained, the organization and development of the company are described. The responsibilities of the management are pictured and outlined. Complete annual reports, arranged and expressed in terms that workmen understand, and telling just how the company earns and spends its money, are put before the workers, and general facts about corporation

[1] See, *e.g.*, pamphlet of Western Electric Company, "A Year of Achievement," 1923.

policy and financing are clearly explained to keep employees informed about the inner affairs of such an organization and thereby stimulate their interest and cooperation.

The important topics presented along this line through the workers' magazine and the lectures are: Just what is "the company"; how was it formed; who are its stockholders; how is it organized and officered; what are the responsibilities of the management; in what form and how great are the company's assets, its liabilities, and its surplus; where does its money go; what does its profit and loss sheet look like; how can the company grow.[1]

During the past year we have seen the selling prices of our output forced down below the cost of production. From month to month Armco men have known what our competitors and the buyers were doing. They have known what wages were being paid in similar industries and what has been happening to selling prices. They know that steel sheets dropped from $110 to $60 a ton, and even touched $50 a ton; that we had a drop in the market of $25 a ton in 45 days. When prices stiffened a short time ago, the reason was analyzed for us. Our cost and sales prices have been analyzed and compared with those of 1914 so that we may know what has happened and how the relationship has changed from conditions which were formerly standard.

Recently Mr. Hook called in a small group and showed them the financial statement which had been prepared for our Directors. These men were workmen who were well known to the management and the men and trusted by them. Then he called a joint meeting of our foremen and the General Advisory Committee, and explained our situation in general terms with assurance from the men who confidentially knew the details that his statements were correct.

The men have asked questions, searching questions, but never have we been put into an embarrassing situation. It pays to take the mystery out of business, to be frank, to work together as friends who understand each other and know that their interests are mutual.[2]

Facts about profits relate themselves closely to the worker's interest in his work, to his interest in economy of operation, to his sense of "company loyalty." If he feels that he is just a cog in a machine which grinds out wealth for others, his interest declines (or is never stirred), any possible motive for economy disappears,

[1] Ripley, C. M., "Company Finances Brought Home to Employees," *Management Engineering*, March, 1923.

[2] Rectanus, S. R., "Winning the Confidence of Employees by Taking the Mystery Out of Business," *Proceedings* of the Academy of Political Science, pp. 16–17, January, 1922.

and he becomes indifferent to claims for his loyalty. The resulting attitude, far from being inconsequential, has been one of the outstanding causes of industrial unrest. Also, it is significant to note that, where profit-sharing and stock-purchase plans are in use, companies find it wise to adopt some fixed policy by which to make plain to employees facts regarding amounts of outstanding capital stock, size of depreciation funds, reserves, surplus, and methods of computing "fixed charges," and "net income."

What is true regarding the desirability of the dissemination of knowledge about financial affairs in these companies is becoming increasingly true in non-profit-sharing firms. The time has come when it is safest to have these policies of a character which it is not too difficult to justify to employees and consumers if an hour arrives when justification is necessary. Such an hour has already come in corporations where shop committees or labor unions are pressing for wage advances or for information about operating costs and profits.

It is a great mistake to think that industrial affairs can be neatly divided into those questions which concern workers and those which concern management. No absolute line of demarcation exists. The price of raw material and its quality, the amount of it which shall be carried in stock, advertising and selling policies, and the volume of finished goods to be carried in stock—these matters not only have their result on the ultimate outcome of the year's profits, but they may mean the difference between ability to pay dividends and the opposite, between a regular flow of work and constant interruptions, between a condition where the material is easily worked and where the amount of "botheration" is annoying and fatiguing to the worker. Clear as all this seems, the implications of it have come more slowly. Now, however, an increasing number of managers appreciate that *employees' interest in financial policies is not something to be feared but something to be welcomed because of the better coordination in all the above directions which it promises.*

Illustrations are plentifully at hand to show that, where managements have taken workers fully, freely, and sincerely into their confidence on financial matters, the results have been mutually satisfactory.

It is a policy of the executives of the Greenfield Tap and Die Corporation, to discuss with their employees frankly and openly business prospects and policies on an occasion when a large group of employees is

assembled together. The connection between general business and a man's own industry and prosperity can be put to a group of employees . . . in elementary basic terms . . . I believe that every employer should stand ready at critical times to analyze with his men in this way the relation of their particular company with world trade . . . This policy . . . prepares for unavoidable troubles. It smooths away unnecessary anxiety of the men. It tends to get cooperation. If there were a wider understanding of the function of money and finance there would be less unrest, less exaggerated notions of the freedom that the head of a business is supposed to have from surrounding restraints.[1]

Another company called its shop committee together soon after the armistice and made a statement which is in part as follows:

A condition of business depression has been brought about by a very decided falling off in orders, due to two principal reasons. First of all our business is divided between export and import, a greater quantity being export. Domestic business has dropped off because everybody is anticipating a decline in prices, etc., etc.

The big proposition that confronts the company at this time is the conservation of capital in not piling into the finished-stock room dollars worth of stuff that cannot be used. The other proposition is turning into cash those things that are in the finished-stock room, because for every $100 worth that lie there one day, the company loses 6⅔ cents.[2]

It is interesting to contrast this policy with that of a company where one worker said, "Every morning you went there, you were never sure but what you were the next one to be laid off."

The Case for Over-organization.—It is important to meet the possible objection to such inter-group organization as is here recommended that all this contemplates an unnecessary over-organization of the factory or store.

Those who have known of the methods employed in installing scientific management systems will realize that there occurs an introductory period in which a large force of planning and clerical workers is needed. Once the determination of methods, standard practices, and records is achieved and the mechanism is operating smoothly, the staff required is much smaller. How-

[1] Payne, Frederick H., "Talking Finance to Employees," *Industrial Management*, July, 1919.

[2] Wolf, Dale, "Successful Industrial Democracy," *Industrial Management*, July, 1919.

ever, the introduction of the system and its adequate comprehension by all in the plant are made easier at the outset by having almost every function assumed by a separate person. As soon as the number and nature of the functions are recognized, it is easy to consolidate them.

The analogy has its force when applied to this objection to the initial over-organization of any group relationships. The first condition of successful coordination is to see distinctly all the groups to be coordinated—all the points of view which have to be brought into working harmony. The second condition is to assure in some way that those groups inter-act consciously and deliberately. There is, of course, no virtue in committees as such. Indeed, the several coordinating bodies here proposed are not necessarily the best possible nor composed necessarily of the right functionaries. But if any organization desires to provide the machinery under which proper coordination will be more nearly assured, it will be led eventually to create and utilize conference bodies the composition of which is governed by the principle advanced in this chapter.

This basic principle is clear. Essential in every organization is a definitely organized understanding between those who plan, those who oversee, and those who do the actual work. Each group—if the organization is to operate smoothly—must act with the full knowledge and agreement of every other group. Intelligent application of this principle in any given case may not be easy. A degree of organization which, for example, is imperative in a plant of over one thousand employees may be cumbersome in a smaller organization.

Even in relatively small plants, however, the fault with the executive staff is frequently a conspicuous *under-organization*. That is, the relation of the several executive functions to each other is not recognized, and the reason for having representative consideration of executive decisions is not appreciated.

Moreover, the value of *formal conference*, even with other executives with whom one may be in constant contact, is not to be ignored. Formal conference, properly conducted, gives a definiteness and sharpness of outline to agreed policies attainable in no other way.

Again, this objection often results from lack of clearness as to the purpose of the conferences and inter-group meetings here recommended. These groups are *not* executive in character in

the sense of being responsible for direction of work. They may be executive in so far as they are empowered to reach executive decisions, but the carrying out of these decisions remains for individuals to do. Committees are badly conducted if their existence is allowed to give executives an excuse for "passing the buck."

The inherent desirability of representative conference comes from the fact that to get the widest possible agreement to a course of action from a large number of people it has proved best to get them in line before it is undertaken. If it seems to require over-organization to achieve this, then that is not an unreasonable price to pay for a highly desirable objective. *Inter-departmental coordination is in its simplest terms merely the effort of all concerned to agree in advance upon a goal and upon the road to be taken to reach it.* It is often true that what may seem to be the longest way to a desired end is in reality the shortest way there.

On the other hand, it is true that unconvinced groups and individuals may never be brought to positive assent to a course of action until they have been embarked upon it and found it possible and desirable by virtue of experiencing it. The practical implication of which truth is that it is not always wise to insist upon complete prior harmony before making changes.

Adequate Coordination.—The conclusion from this survey of the relation between the different staff groups is simple, but exceedingly far-reaching: *All general policies and plans should be decided, not by the staff department which later executes them, but by the operating committee whose primary job is to secure balance and harmony in the management of the organization.* Adoption of this policy will embody one of the bed-rock principles of sound organization.

Sound organization, it is well to remember, is not without its definite principles. It does not grow spontaneously; it develops only as certain broad rules are adhered to, and the task of coordination—at the top and at the bottom of the organization—will be greatly simplified if those rules are in effect. It will, therefore, be useful to state briefly those principles of executive action which apply both in the management of a whole enterprise and within each single staff department.

Principles of Sound Executive Organization.—The work of each executive will be clearly set forth in writing—an executive's job analysis. This statement will make plain the limits of his

authority and responsibilities, and it will show to whom he reports.

The work of the executive is to *plan, organize, delegate,* and *supervise.* He is responsible for seeing that all the details of the work for which he is responsible are delegated to someone.

The executive is in touch with the work of those under him through the use of those summarized records which are necessary to give him a grasp of the crucial problems and large results. He will decide which records it is important for him to see; and will keep these at a minimum. He will be presented with full details only when these are necessary to help him in forming decisions. He will also keep a permanent record of his own important decisions.

Records of executive policy and executive accomplishment should be currently available. Too much time is spent in every organization by executives in "picking up the threads," in explaining to subordinate executives policies which have presumably been in force for some time, in trying out again mistaken methods, of which a second trial is quite unnecessary.

The executive in delegating responsibility will make as specific a statement as possible of the work to be done. *He will also delegate all the authority necessary for the proper performance of the work.*

The executive will have the duties of his subordinates clearly set forth in writing. Each one will be responsible for certain specific duties. Every duty will then surely have some one person who is responsible for it.

The executive will see to it that no man is indispensable to the organization. This is meant in the sense that each executive position should be adequately understudied.

The executive will see that each individual is allowed to function so far as possible in the field where he is qualified and interested. It is less important to have a neat and logical organization chart in the office, than to have all the necessary functions distributed so that they may be performed effectively.

The executive will allow understudies sufficient chance to exercise responsibility and make decisions to be sure that when the time comes they can "take the reins" and that they will do it wisely.

The executive will see to it that no man is expected to do more in a day or a week than can reasonably be done.

The executive will give full credit to others for results achieved by them. He will lead and not drive; he will challenge and stimulate ability by *giving it a chance;* he will foster it by giving it recognition when it is displayed.

Administrative machinery is good, it has been wisely summarized:

> . . . when the proper tests are prescribed for the qualifications of officers, the proper rules for their promotion; when the business is conveniently distributed among those who are to transact it, a convenient and methodical order established for its transaction, a correct and intelligible record kept of it after being transacted; when each individual knows for what he is responsible, and is known to others as responsible for it; when the best-contrived checks are provided against negligence, favoritism, or jobbery in any of the acts of the department.[1]

Charts of Coordination.—Organization charts can serve a useful purpose in keeping everyone's thinking straight about the correlation of functions. Confusion will be avoided if it is recognized that charts are of three distinct types to convey three different kinds of information; and until all three are understood, the whole story of the distribution of executive work and authority is not apparent

There is, first, the *authority* chart, which shows the line of authority, of policy determination, and execution.

There is, second, the chart of *functions*, which shows what functions each department is supposed to perform.

And, third, there is the *personnel* chart, which shows how the several functions are distributed among the executives. Usually, the first chart may be combined with the third to show the line of authority in terms of those who exercise it.

To help make graphic the proposals of this chapter, Chart IV has been included as a general conception of the interrelation of the different functional groups of the personnel and production departments. To keep the chart as simple as possible it is not shown how these two departments might be coordinated with sales and finance; nor is there included any relationship to outside bodies, such as would be entailed if a collective agreement existed with a labor union.

Charts V and VI are good samples of authority and function charts for executive organizations as a whole. Chart V depicts a relationship of the "industrial relations manager" to the rest

[1] Mill, J. S. "Considerations on Representative Government," Chap. II.

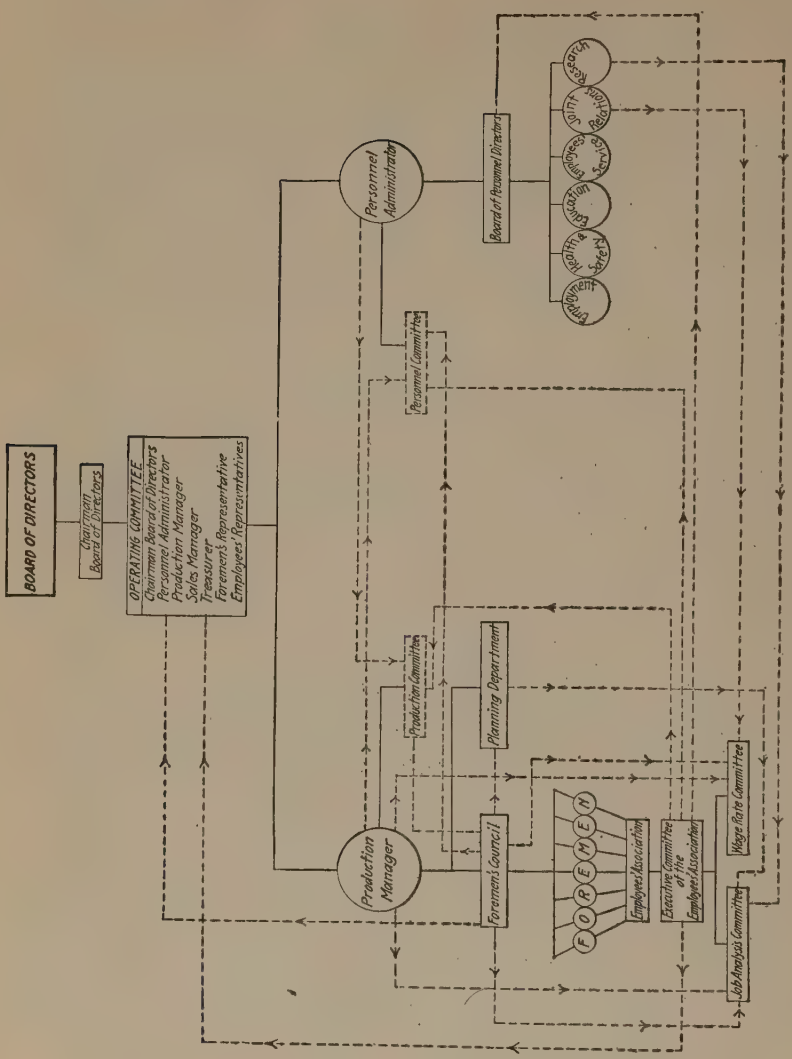

CHART IV.—Functional Chart Showing Coordination of Personnel and Production Administration.
(Solid lines are lines of authority. Dotted lines signify representation and coordination.)

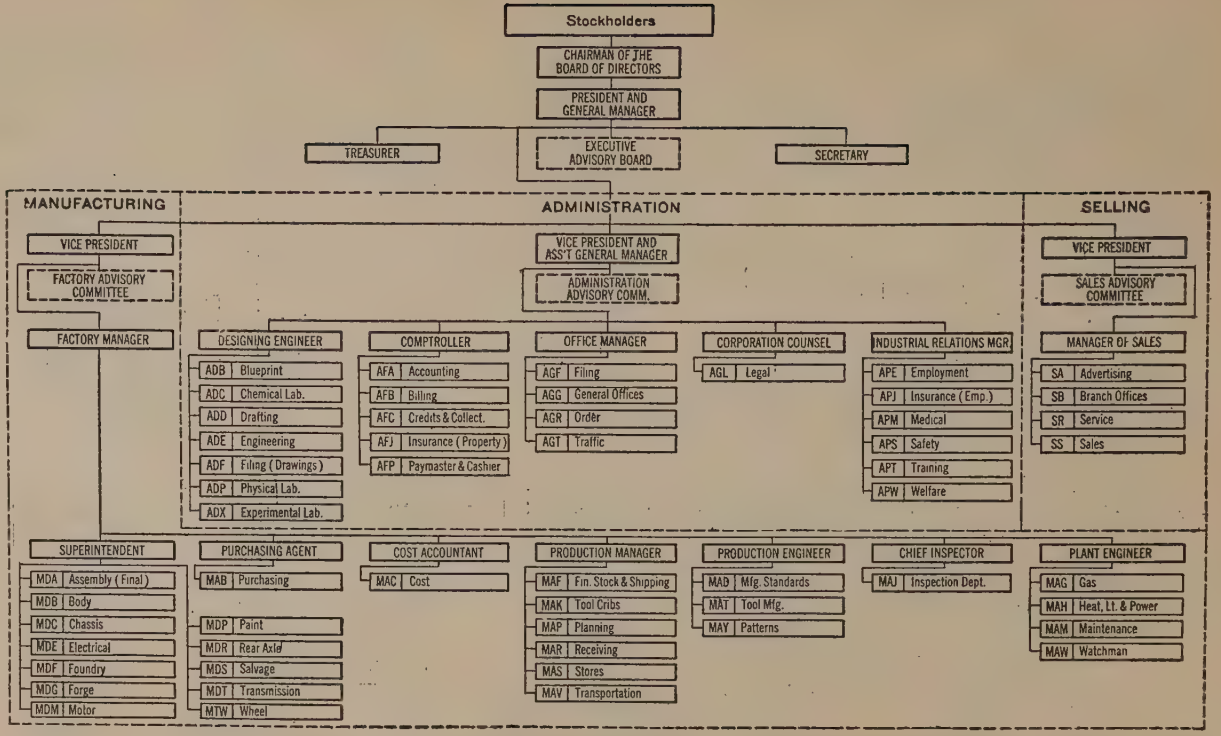

CHART V.—Organization Chart for Automobile Plant. (Reproduced by permission from *Administration*, March, 1923.)

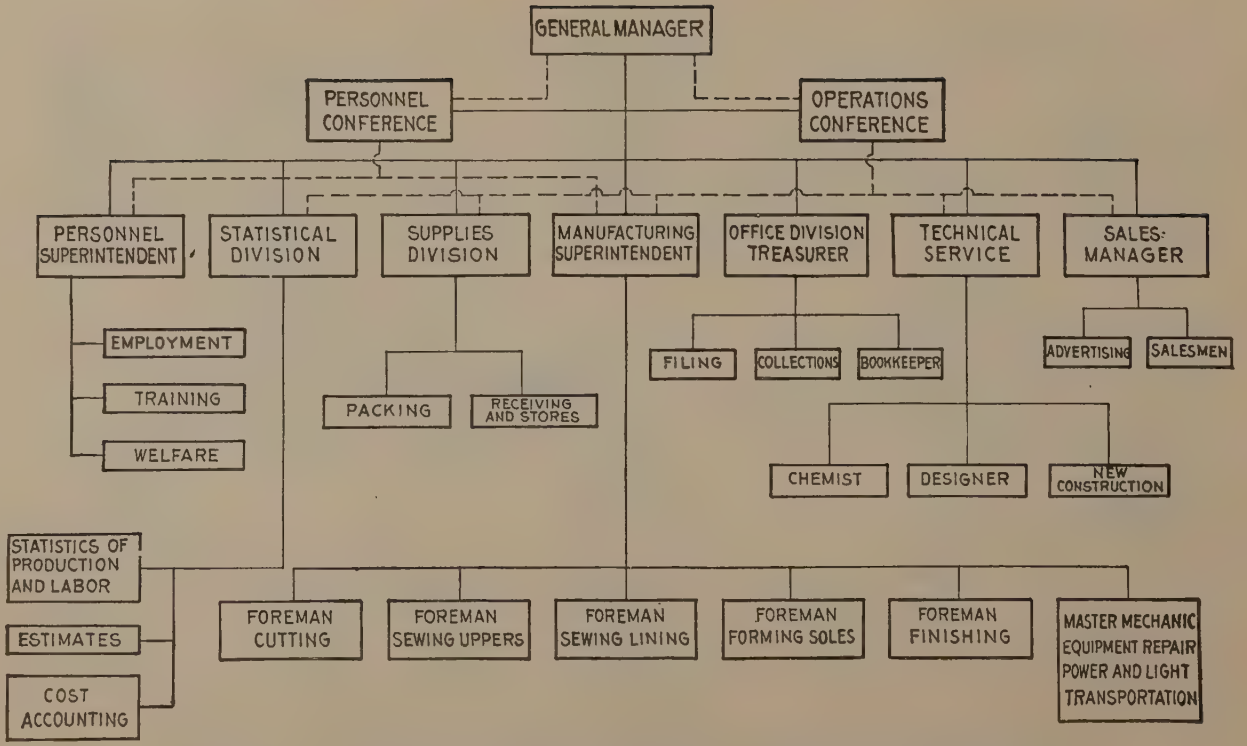

CHART VI.—Organization Chart of a Shoe Factory. (Reproduced by permission.)

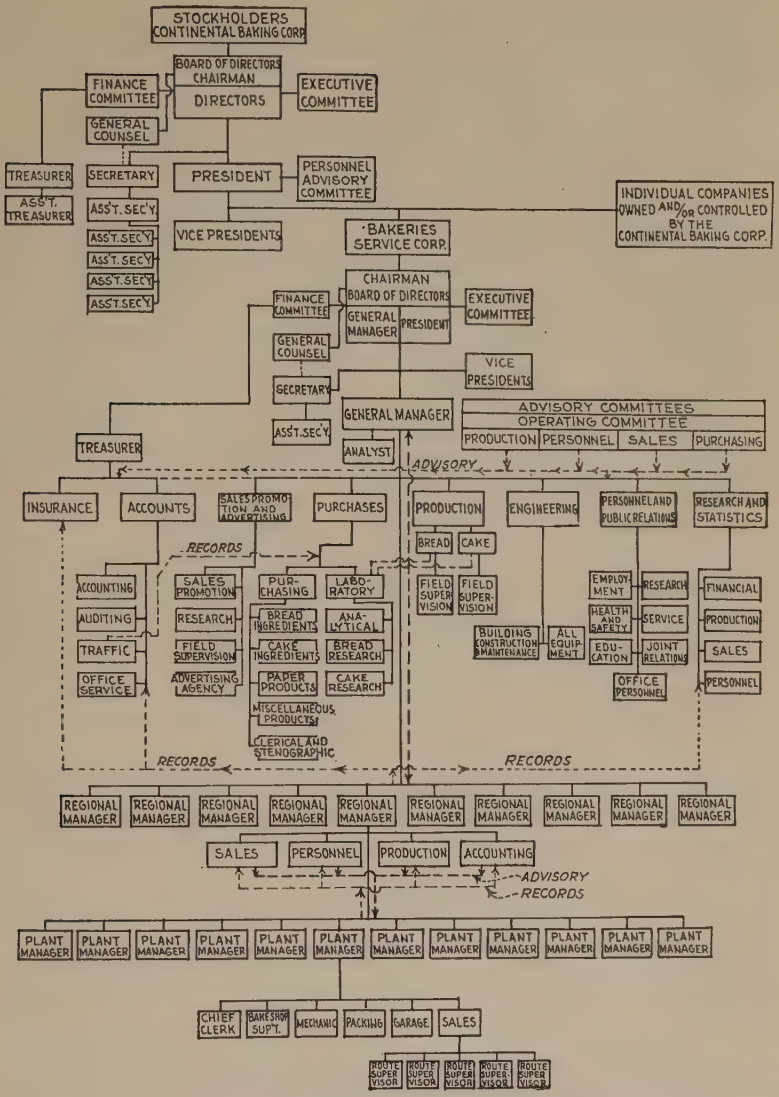

CHART VII.—Composite Organization Chart, Continental Baking Corporation, Bakeries' Service Corporation, and Local Bakery. (Reproduced by permission of the Continental Baking Corporation.)

of the organization which is similar to that characterized as the first plan mentioned on page 6. Chart VI corresponds in the relationship of the "personnel superintendent" to the rest of the organization to the second plan on the same page.

Chart VII is a good example of the organized relationships as between a holding company (the Continental Baking Corporation), a central staff service company (the Bakeries Service Corporation), its ten regional managers, and its numerous local plants. Of special interest in relation to personnel management is the set-up of the staff advisory and operating committees in the personnel field and the Personnel and Public Relations Department of the parent company. Each regional manager through cooperation with the personnel division keeps in close touch with the personnel problems of the plants under his charge. It will be seen that the type of inter-relation provided for in this chart, both as between central and local executives and as between one staff department and another, conforms to the organization plan advocated in this chapter.

The Mechanics of Coordination.—Although this book does not deal with management in all its phases, it would be a serious omission to neglect to call attention to the problems of measuring and recording differing activities in their significant relations to each other, in order to have, as far as possible, a statistical picture of the effectiveness of inter-departmental coordination.

Notable work along these lines has been done and much still remains to do.[1] From the personnel point of view, the following are significant data, which can usefully be correlated: (1) relation of direct to indirect costs; (2) actual machine hours compared with possible machine hours; (3) idle time of men and machines; (4) quantity of goods finished, in process, and on hand; (5) length of time in process; (6) volume of production compared with production capacity; (7) goods in process behind schedule; (8) increase and decrease in various causes of delayed production; (9) time lost by absence, accident, lateness, turnover, etc. The aim is, of course, for the personnel executive to be able to show that there is a positive relation between the work done by his department and the economy of manufacture from the

[1] See CLARK, W., "The Gantt Chart;" WILLIAMS, JOHN H., A Technique for the Chief Executive, in "Scientific Management Since Taylor," edited by E. E. HUNT; ROE, J. W., "Measurement of Management," in *Mechanical Engineering*, November, 1923.

point of view of time taken, material used, wear and tear on equipment, and volume of output. Not always can these facts be statistically established; but where they can, they constitute a powerful argument for the continuance of the personnel program.

Coordination in Department Stores.—Although the discussion thus far has used largely the vocabulary of the factory, the principle invoked is applicable to, and is being successfully applied in department stores. Its value there has been found to be especially great because of the importance of bringing the buying, selling, and operating forces of the store constantly into working harmony. In fact, personnel committees like those described above were introduced into a number of stores before factory organizations saw the necessity for them.

Administrative Problems of a Holding Corporation.—There is a final aspect of the problem of administrative correlation which merits separate consideration as a problem of growing prevalence. We refer to the correlation of the central office and the local offices in a holding or operating corporation which controls a number of plants or stores.

Such central organizations do not usually hold in the central office the determination of distinctly local policies and the administration of local practices. The right principle, difficult though its application in any given case may be, is to let the central office determine policies concerning which uniformity among the units is essential, but beyond that to leave wide discretion to the local plant management.

Even so, the decisions of the central office should be reached only after discussion among those involved. The principle of the representation of every special interest in decisions which affect them should apply here as elsewhere. Specifically, this means that the respective plant managers of an operating company should form the nucleus of the directive group of the parent company.

Often these parent companies construe their function as that of "service" agencies for the smaller units. In all such cases the relation of the staff experts—cost, finance, production, research, personnel experts—to the respective departments of the several plants becomes at once a problem. Suppose, for example, the parent company has a manager of industrial relations; what shall be his relation to the personnel administrator of each plant? His relation should probably be in part administrative and in part

advisory. It will be useful to have uniformity among the plants as to certain forms, records, and standards of terms of employment; although achieving this uniformity by fiat would usually be a rather unwholesome way of getting results. On as many questions as possible it will be important for the staff expert to "sell" his ideas by persuasion and conviction rather than force their adoption by an exercise of authority.

This principle should apply in every staff branch of management, and for the reason that the local administration can only function in accordance with the staff's advice, if it knows why it does what it does, and believes that in following such advice it is doing a good thing.

The tendency in industry is definitely toward the operation of a number of operating units under one management. In such consolidations, a period of highly centralized control has usually been followed by a gradual decentralizing of control and authority to the local manager. This transition appears to be inevitable because sound; and the sooner it is effected the better. The central staff group has the expert knowledge and broad outlook to make its advice invaluable. In action the local group must determine methods and apply with flexibility the policies agreed upon. The ideal balance to be sought is one which harmonizes the freedom of action and initiative of each local plant with that degree of uniformity among all which proves to make for efficiency and economy in the operation of the entire corporation.

Two of the foremost students of government in the last century have analyzed the problem of centralization in terms which are so completely applicable to the relation of the holding company to its constituent plants, that they merit thoughtful study. Indeed, they have given classic expression to the fundamentals of this subject.

> Centralization easily succeeds, indeed, in subjecting the external actions of men to a certain uniformity, which we come at last to love for its own sake, independently of the objects to which it is applied, like those devotees who worship the statue, and forget the deity it represents. Centralization imparts without difficulty an admirable regularity to the routine of business; provides skilfully for the details of the social police; represses small disorders and petty misdemeanors; maintains society in a *status quo* alike secure from improvement and decline; and perpetuates a drowsy regularity in the conduct of affairs, which the heads

of the administration are wont to call good order and public tranquillity; in short, it excels in prevention, but not in action. Its force deserts it, when society is to be profoundly moved, or accelerated in its course; and if once the cooperation of private citizens is necessary to the furtherance of its measures, the secret of its impotence is disclosed. Even whilst the centralized power, in its despair, invokes the assistance of the citizens, it says to them: "You shall act as I please, as much as I please, and in the direction which I please. You are to take charge of the details, without aspiring to guide the system; you are to work in darkness; and afterwards you may judge my work by its results." These are not the conditions on which the alliance of the human will is to be obtained; it must be free in its gait, and responsible for its acts, or (such is the constitution of man) the citizen had rather remain a passive spectator, than a dependent actor, in schemes with which he is unacquainted.[1]

John Stuart Mill supplements this observation with the following statement of a positive principle:

The authority which is most conversant with principles should be supreme over principles, while that which is most competent in details should have the details left to it. The principal business of the central authority should be to give instruction, of the local authority to apply it. Power may be localized, but knowledge, to be most useful, must be centralized; there must be somewhere a focus at which all its scattered rays are collected, that the broken and coloured lights which exist elsewhere may find what is necessary to complete and purify them. To every branch of local administration which affects the general interest, there should be a corresponding central organ, either a minister, or some specially appointed functionary under him; even if that functionary does no more than collect information from all quarters, and bring the experience acquired in one locality to the knowledge of another where it is wanted. But there is also something more than this for the central authority to do. It ought to keep open a perpetual communication with the localities—informing itself by their experience, and them by its own; giving advice freely when asked, volunteering it when seen to be required; compelling publicity and recordation of proceedings, and enforcing obedience to every general law which the legislature has laid down on the subject of local management.[2]

The phrase, "power may be localized," should, as the key to the successful administration of a large operating company, be framed for all the staff officials of such companies; and the

[1] Tocqueville, Alexis De, "Democracy in America," vol. 1, pp. 113–114. Boston, ed., 1876.

[2] "Considerations on Representative Government," Chap. XV.

phrase, "knowledge must be centralized," should be continually impressed upon all local managers. With this interaction of forces, results promise to be the best. Yet the problem is, after all, more complex than we have yet intimated. It is not really faced in any corporation till the executives soberly ask themselves how many plants and what number of employees can be effectively brought under one directive organization in a given industry. Upon this question, there appears to be room for significant experiment. For certainly the conclusion seems inescapable today, that some plants are too large for proper management and that some operating companies have too many units to assure the fullest effective use of the central staff by each local plant. That there is a right size for plants and corporations in each industry seems a probable hypothesis. And in organizations which have grown without giving any thought to what is for them the efficient size, administrative correlation has become a serious problem.

Conclusion.—It is clearly necessary to provide in each organization that the several staff departments in relation to each other and to the line departments, supplement each other rather than work at cross purposes. Only so can intelligent, unified, and balanced executive action be secured.

Personnel and other staff managers are looking at the same problem of applying labor to material to transform it into useful objects, from different but equally indispensable points of view. Successful management means that at all times and on all significant executive decisions, these points of view have been harmonized or at least brought to a practical working adjustment. What degree of coordination there should be beyond this point in order to secure a regularized production and steady work, will be considered in the next chapter.

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CHAPTER XXVI

HOW TO ASSURE STEADY WORK

The most outstanding failure in our industrial system—affecting alike the interests of the employer and the employee—is the tremendous amount of intermittency of employment and actual unemployment. If the individual manufacturer or a given industry is going to take up personnel work, this is certainly the place to start, for thousands of employers have learned how to give steady employment in season and out of season, in good and bad times. Unemployment and its twin sister intermittency are certainly not acts of God, but usually due to bad management, or rather, due to the absence of forethought and planning.[1]

Again and again throughout this study the importance to the worker of having some assurance of regular employment has been emphasized. It should not be necessary to urge the importance of regularized production to the management, since obviously if the plant could run 300 days every year the amount produced and its value, other things being equal, would be commensurately larger than is now the case. It is, nevertheless, a matter for remark that so many plants have been willing to rest content with an irregular flow of work, due to whatever reason, and have not always shown an affirmative determination to keep running.

The extension of personnel management has quickened interest in regularization; since, even if buildings and machinery can stand without working, the workers themselves are all the time directly dependent upon their efforts for their week to week sustenance. So true is this and so fundamental a fact is it, that it can be laid down as an axiom of sound management that *no organization has really solved its problem of securing the interest, loyalty, and enthusiasm of its members unless it is assuring them work (or some compensation in its absence) the year round.*

This truth has not gone unrecognized, and in recent years, due largely to the insistence of personnel executives, an increasing number of plants have undertaken to regularize employment.

[1] Cooke, M. L., "An All-American Basis for Industry," p. 3, Philadelphia, 1919.

No discussion of methods gets beyond the elementary stages, however, which does not distinguish the several causes of irregular work. There are four large groups of causes, and attention to only one will naturally not complete the solution. Causes of irregularity lie in individual deficiencies, poor factory organization and coordination, seasonal employment, and industrial depressions. While it will be useful here to get a broad idea of the entire problem we shall consider at greatest length the second and third causes—factory maladjustment and seasonal fluctuations.

Individual Maladjustments.—Irregularities of work which are due to the individual occur both when the worker is normal and when he is deficient. It is a primary task of the personnel department to secure the proper selection and adaptation to the organization of normal individuals. There is no denying that lack of such proper adjustment has contributed to making even more individuals uneasy and inconsecutive at work.

When, however, the worker is definitely suffering from mental or physical affliction, the remedy beyond the initial detection of an abnormal condition is not at hand within the individual plant. By improved selection methods it will be possible and essential to identify (1) the feeble-minded, and to a certain extent find work adapted to their powers; (2) the paranoiacs; (3) those who are victims of recurring obsessions, delusions, or fits of melancholy; (4) those with a chronic wanderlust and complete absence of powers of application; and (5) the chronic inebriates. While individual companies can and should help by identifying such unfortunates, the major responsibility for their custody rests upon the community. The provision of community agencies for the segregation of the more acute cases is the only safe and humane procedure.

Company Maladjustments.—It is often hard to distinguish those causes of irregular work which are done to lack of orders caused by a poor selling organization from those due to seasonal demands. Without trying to draw any hard and fast line, methods of regularizing production from the point of view of the different administrative departments will be considered; since upon each of them devolves certain responsibilities for regularization.

Personnel Procedure.—In addition to all its efforts to assure that the workers are fitted for and like their work, the personnel department will have at least two special concerns in its cam-

paign to regularize employment. It will see to it, first, that there is no lay-off in any department before the personnel manager is notified. Since "a good rule works both ways," it will also urge workers to give notice of leaving a week ahead, and have a definite rule that *no one will be laid off without at least a week's notice*—and two weeks would be better. It will frequently happen that, if lay-offs in one department are known in time, the workers can be shifted to other departments. If the lay-off is definitely temporary and the alternate work pays less than that from which workers are being laid off, a separate "retainer fee" can be devised, which represents the difference between the two rates. Objections to this sort of transfer have been successfully overcome in several plants where by the device of a "retainer fee," earnings at the lower paid work were made to equal the workers' former income.

Numerous other experiences with transfer could be cited, of which the following are typical:

> A miller has found no difficulty in transferring employees from package machines where the work is entirely automatic, to sewing machines in the sack department. A large canner of soups and beans continually changes employees from one department to another. In 1924 a packer of dried fruits transferred 341 of his 634 employees from one job to another to offset slumps. In another food factory the foreman of the conserve department is also foreman of the peanut butter department, and during the height of the conserve season the peanut butter workers are turned to making conserves.[1]

In the second place, the factory force will have much more flexibility if the personnel department adopts a policy of *training for more than one job*. Whether such training is undertaken initially or on the side while the worker does his own job is of secondary importance. The important thing is to realize that if the worker knows but one operation, irregular work cannot at times be avoided. This idea gets useful elaboration in those plants that have a flying squadron (usually picked with the advice of the personnel department), the members of which know all the operations of a plant and can work temporarily in any department where there is need of workers. By this means a

[1] *Steadying Business*, No. 1, "Controlling Seasonal Slumps," edited by the Policy Holders' Service Bureau, of the Metropolitan Life Insurance Company, New York City.

smooth flow of work is assured, and irregularity of employment for those at adjacent jobs whose work would otherwise be interrupted, is thus reduced.

We transfer operatives much more freely than we used to, not at random, of course, but with a view of training an operative into two or three lines which normally dovetail. We have found that this development of versatility makes considerable demands upon intelligence in planning, but when these demands are met the advantages are considerable. We do not lose as much in skill as we expected and what we do lose we believe to be made up by the development of intelligent interest and the reduction of the monotony factor.

The transfer is also valuable in retaining a high grade of employees. When we used to lay off for seasonal slackness, we never lost the worst employees. They were content to wait with their hands folded for us to open up again. But the best ones would not wait for anybody. They would go out and take care of themselves. They were the kind of employees who might some day develop into department heads. They were aggressive. When they were laid off for two weeks they found other jobs and we lost them.[1]

Selling Methods.—Under present conditions success in stabilizing production depends ultimately on ability to prophesy demand; or, more explicitly, it depends upon ability to get orders for a regular output, or to know enough about markets to be able to make to stock economically. To know approximately how much of the plant's possible production can be disposed of at more than the cost of manufacture is essential to steady operation. Superficially, this is each company's sales problem; fundamentally, it is a problem that ramifies into the whole of each industry and involves an answer to those formidable questions: What do people want; and how much of it do they want? This problem we shall speak of as the organization of demand.

The first requisite in a sales policy which will smooth out the production curve is the *will to regularize*. The shopworn dictum that where the will exists a way will be found applies here, as the experience of many corporations shows. The sales manager must himself be "sold" enthusiastically to the idea of regular work.

[1] Dennison, Henry S., President, Dennison Manufacturing Company, Framingham, Mass., "Stabilizing Employment in a Diversified Seasonal Industry," *Proc.*, American Academy of Political and Social Science, p. 550, January, 1922.

There should at the start be clear agreement in the executive staff: (1) on the maximum volume of production to which the plant will hold, despite excess orders, through a given period in advance—say, a year; (2) that this standard output will not be increased without prior staff agreement; (3) that the firm will go after regular business.

Once executive agreement is obtained to these three maxims of regularized production, it is impossible for the sales department to descend upon the plant with rush orders requiring overtime work on an extra crew of workers, or enlarged plant; and then follow this rush with long periods in which it secures few orders. It is distinctly up to that department to get the orders coming in steadily and to have delivery dates so arranged that work can flow regularly. Devices which have successfully achieved this end are:

(*a*) Offering special inducements to buyers in off-seasons or dull periods, either by discounts or by promises of prompt delivery or storage at the plant until the goods are wanted. One firm has

> . . . induced customers to put in advance estimates of their monthly requirements. An important factor in inducing customers to give the estimates is that although the estimates do not limit the customer, customers who do not exceed their estimates are preferred in busy times to those who order in excess of them.[1]

(*b*) Offering inducements to salesmen to sell in off-seasons or dull periods. These may take the form of bonuses on sales. Some firms no longer use jobbers because they believe they can keep a more affirmative control over demand and sales if they make use of a sales organization of their own. For where selling is done through a jobbing house, companies find that the jobbers "lay down" on their selling except in the midst of the busy season. Naturally such jobbers have no special interest in building up out-of-season sales, unless a definite inducement exists.

(*c*) Carrying on a special advertising campaign when business is slack.

(*d*) Inducing salesmen on the road to study and report constantly on changes in the trend of demand. To this policy some firms which produce articles in which style is a factor, have

[1] SLICHTER, S. H., "The Turnover of Factory Labor," p. 271.

added another. They find that if salesmen visit customers more frequently, they get a closer correspondence between orders and acceptances of the finished goods.

(*e*) Selling in markets whose dull seasons dovetail. In a large country like the United States, or in trade with South America, such different climatic conditions are found simultaneously that sales can be kept going on certain seasonal products the year round. The larger the area of the market, the more likely is a brisk demand in one section to offset a slackened demand in another.

(*f*) Selling and advertising an article with a trade name and a standard quality for which a regular demand can be built up on the merits of the article.

(*g*) Providing a subsidiary line of goods for sale which can be used as a "filler." Much has been done in this way by firms in a variety of industries. This policy depends on favorable production conditions, adequate equipment, trained workers, etc.

Production Methods.—If the executive staff has agreed to a standard volume of output and the selling department has secured the orders, the production department is left the task of keeping the work flowing smoothly from one department to the next.[1] This means, of course, that there must always be sufficient raw material on hand; that enough special parts of machines which are likely to break are in stock so that breakdowns are quickly repaired; that the method of perpetual inventory is in use; that weather conditions have as far as possible been counteracted by artificial means. In recent years much has been done in the way of special shelters in the exposed industries, by refrigeration and cooling of the air in industries demanding cool weather, by humidifying in industries where a constant percentage of humidity is needed. Significant testimony of developments in the building industry is offered in the following quotation:

[1] The current interest and activity in this field are reflected in the recently published material descriptive of a wide variety of measures. The material in this chapter reviews an experience more fully set forth in the "Regularization of Employment," by H. Feldman; "Can Business Prevent Unemployment," by Lewisohn, Commons, Draper, Lescohier; "The Stabilization of Business," edited by L. D. Edie, Chaps. V and IX; "Seasonal Construction in the Building Industries;" "Business Cycles and Unemployment," edited by the National Bureau of Economic Research, Part III; Series of pamphlets entitled "Steadying Business," by Metropolitan Life Insurance Company, Policy Holders' Service Bureau.

Bricklaying and stone setting are now carried on at 6 to 10 degrees below freezing and a concrete dam was built in Canada while the temperature ranged as low as 50 degrees below zero!

In New York City construction is going on 12 months of the year. The George A. Fuller Company, after analyzing its own records over a period of 10 years, has found that an average of only 14 days a year is lost from weather conditions. This is true in many other northern cities. Among new buildings erected during winter months are the American Furniture Mart in Chicago—one of the largest buildings in the world—the eighteen-story concrete Hide and Leather Building, New York, and the Home Savings Bank, Toledo. The Turner Construction Company of New York poured concrete in the basement of the Angora Apartments, Lake Placid, New York, January 14, 1923, and the sixth and last story was placed March 1—a story a week. During the construction period the temperature ranged from 26 degrees below to 15 degrees above zero. A concrete dam was built at Sturgeon Falls, Ontario, when the temperature was as low as 50 degrees below zero. Canadian contractors have used ingenious arrangements of tarpaulin to protect workers and live steam pipes to keep cement flowing. Several Canadian builders have gone so far as to construct wooden coverings about buildings during very severe winters and found that it paid.[1]

Leveling of the output curve requires also the elimination of any so-called "neck of the bottle" from one manufacturing department to another. Many plants have one department where the work tends to accumulate because it has never been supplied with sufficient machinery or workers. Elimination of these joints of congestion is urgently needed in order to lessen the strain and overtime work required of those in the rushed department, and to reduce the risk of temporary shut-down at the processes before and after it.

Manufacturing to stock is possible where a standard product or standard parts are made. Not the least value in a policy of standardizing parts throughout an industry is that an accumulation of parts made to stock in a dull period is less speculative than where no standardization obtains.

The manufacture of more than one type of goods is an increasing practice. If a firm can dovetail the busy season for one of

[1] "Winter Building," in *Executives' Service Bull.*, published by the Policy Holders' Service Bureau of the Metropolitan Life Insurance Company, January, 1926.

its products with the busy season for another, it can run the year through without interruption.[1]

A less scientific expedient is to use the working force to overhaul the machinery or clean up and paint the plant during any temporary slump. Some firms postpone extensive repair and renovation work until such times.

The periodic readjustment of the number of working hours per week has been utilized in some cases. The following experience is interesting in this connection:

> We have a basic 44-hour week. If business is brisk and we have to get out orders, we leave it to the employees to decide whether we shall add new people or increase the working day up to a maximum week of 52 hours. The employees decide whether the hours are to be added on to each day, including Saturday, or added to the first 5 days only. We pay time and a half for all time over the basic 44 hours and up to now when we have rush hours, the employees have preferred to stretch the working time to bringing in temporary workers.[2]

The practice of a total shut-down 2 weeks a year is not without its advantages, especially if the period is chosen in which work is slackest, and if employees know ahead when it is coming. However, unless workers are paid during this vacation, as suggested in previous chapters, the factory closing will have all the effects of irregular work; it will constitute an arbitrary withdrawal of the chance to work and earn.

Financial Methods.—As H. L. Gantt persistently pointed out,[3] the price at which goods are offered in dull times can affect

[1] The following is taken from FELDMAN, H., "The Regularization of Employment," p. 129:

"Other interesting examples of fillers show how helpful they may prove. A window-screen manufacturer overcame 6 months' shut-down by taking on a line of game boards to sell to the Christmas trade. S. L. Allen & Company, Inc., manufacturers of a full line of farm and garden implements, early in its career was faced with a marked lull in its principal products during the summer, and the need for a side line was realized. After a series of experiments, a sled called the Flexible Flyer was evolved, which now furnishes the plant with enough business to keep the factory working approximately at capacity throughout the summer months, this side line alone employing about 40 per cent of the factory force from Mar. 15 until well into September. George W. Smith & Company, of Philadelphia, engaged in a high grade of woodworking, entered into the laminated automobile wheels business to supplement its regular line of interior wood furnishings for office buildings and churches."

[2] *Executives' Service Bull.*, Published by Metropolitan Life Insurance Company, Policy Holders' Service Bureau, May, 1926.

[3] See GANTT, HENRY L., "Work, Wages, and Profits."

their sale tremendously. The manufacturer who can in a depression offer goods at the same price as in normal times, will find his business picking up sooner and faster than that of his competitors; but, as Mr. Gantt has shown, it is the opposite of this situation which usually takes place. Since overhead charges have remained constant as demand falls, the manufacturer charges all his overhead into the cost of the small output which, let us say, he is producing with 40 per cent of his equipment; and in consequence the price at which he can offer it with the falling demand is too high to stimulate sales. If, however, a proper cost system is in use, overhead charges are not assessed in this lump-sum manner. They are distributed on a square-foot basis, or, as is usually to be preferred, on a machine-hour basis; that is, only so much of the total overhead costs as used by a machine in each hour of its operation is charged to it when it operates. Obviously, total overhead carrying charges remain nearly the same whether one machine or a hundred run. Selling on a basis of actual unit costs, the manufacturer is able to offer more nearly the same price in dull and in good times. True, there is still the extra cost to be met; but that extra burden *is not incurred in the manufacture of the relatively few articles being made in the dull time, articles which it is greatly to the plant's interest to sell in order to bring it out of its dull season.* This extra burden is in the nature of a general risk of the entire enterprise and should be figured into final profit and loss.

The financial department can also do an educational service to the entire staff by computing and dwelling upon the *high costs of irregular work,* costs of idle equipment, loss of experienced workers who are laid off and do not return, training of new workers, reduced output immediately before and after a lay-off, etc.

With such costs known, it will then be easy for the management to get a basis for comparison between the cost of irregular work and the cost of some method of guaranteed annual compensation. It will be surprising to many firms to see, when all the difficulties are taken into account, including that of losing good men laid off who never return, how little the difference in cost is between the lay-off method and that of the annual wage guarantee.

Seasonal Fluctuations.—Many of the ways of reducing highly seasonal factory production have now been discussed; but the larger seasonal movements of labor, like those of harvest workers, lumber workers, hotel resort workers, can be aided by an agency of information and assistance to individual workers which no

single employer can supply, or should try to supply. The lengthening of the busy seasons in such industries can only go to a certain point, and beyond that the only relief is in securing employment in other industries for the remainder of the year. This means shifting workers from one industry to another, and from one locality to another. Neither of these can be done easily; nor should they be done irresponsibly. Such a process requires protection to workers and to the community at every point. To carry on such a function successfully and on a nation-wide scale, the country must, as was pointed out in discussing sources of labor supply, sooner or later organize a universal, non-competitive, and free public employment service. Such a service the United States Government in cooperation with state and city governments is alone in a position to render.

Coping with Depressions.—Despite all that the single corporation or a public employment service can do, a period of depression is likely to set in recurrently and make the securing of orders exceedingly hard. Some firms during such periods resort to a drastic shortening of the week for all; or they offer full-time employment 1 week to one-half of their force, and the next week to the other half. Such expedients are certainly better than no work and no earnings, but they cannot safely be continued over more than 2 or 3 months at the longest. Under-employment is humanly almost as harmful as unemployment. It tends to keep workers tied to half-time employment in one place, while full-time work might be found elsewhere; it discourages workmanship; it undermines living standards.

Proposals for supplementing the dull times of private business by a vigorous prosecution of public business, which would in part be held in reserve for slack periods, are excellent as far as they go. The more people can have profitable employment, the more likely is a normal volume of total demand to be maintained. If city, county, state, and nation were to adopt a policy of reserving even 10 per cent of each year's purchases and new projects to be started when a depression seemed imminent, some relief would be afforded;[1] but this leaves the central problem still untouched.

The Organization of Demand.—The central problem is to secure the operation of industry on the basis of supplying known

[1] See MALLERY, OTTO T., The Long-range Planning of Public Works, in "Business Cycles and Unemployment," Chap. XIV.

effective demands. Obvious as the remark may seem, it is well to remember that people's *needs are really a very constant quantity*, or rather, a gradually and constantly increasing quantity; and effective demand appears in the aggregate not to fluctuate more than 15 or 20 per cent in even the worst business years.

One of the causes of depressions is that in successful years everybody's confidence in future sales is unbounded; every manufacturer believes that he can sell more than he ever has sold; and he manufactures more. In this process, a larger total production materializes than can be sold at a price which will bring a profit, since increased costs have raised prices, and a note of caution and conservatism is struck. The bankers who have advanced the credits for the whole inflation see that returns are slowing down; they begin to call in notes which cannot be met at once because sales have not occurred; they refuse to grant new loans; and thus begins a process of retrenchment which culminates in a depression.

Thus, organization of the demand, in this sense of knowing what the market can absorb out of the total producing power of an industry and of *seeing to it that this total marketable quantity is not overproduced, is impossible in an industry when each corporation acts completely in ignorance of the quantity of output of its competitors.* Organization of demand requires organization among the several producing and selling agencies of an industry. Society has a right to hope that, as each industry rather than each factory comes to be conceived as a unit of production, the amount produced will be more accurately related to demand than is now the case, and business cycles will tend to diminish in severity.

In this connection the following statement by Secretary of Labor Davis is of great significance:

> The greatest source of unemployment in this country is the overdevelopment of industry. The fact is that our productive machinery and equipment can not run 300 days in the year without producing a stock so large that it can not all be sold in this country nor in any and all other countries.
>
> While I am going to talk about only two or three of these overdeveloped industries, as a matter of fact dozens of others could be cited that are in precisely the same condition.[1]

[1] DAVIS, JAMES J., United States Secretary of Labor, "Unemployment as a Result of Overdevelopment of Industry," In *Monthly Labor Review*, of the United States Department of Labor, p. 9, October, 1925.

The importance and value of these cooperative activities is well suggested in the following discussion:

The recent decisions of the Supreme Court, legalizing the collection and dissemination of business statistics by trade organizations, have freed business from the fear of prosecution, and at least made possible the existence of an intelligent, fully informed, as well as an unrestricted market. If the leaders of American business can convince their less progressive competitors of the value of business statistics, a new, steadying factor will have been injected into the competitive system.

Some of the forms of statistics which, if they are available to all buyers and sellers within a market, have a tendency to stabilize market conditions may be summarized as follows:

First: annual statistics which show the productive capacity and the production of every important industry would be helpful. Such data could be best compiled by the government and the expense should not be prohibitive. If information of this character received wide publicity among business men, bankers, and investors, it might tend to retard the construction of plants far in excess of those needed to supply the demand.

Second: statistics showing the current conditions of supply and demand are of great value. A number of industries are already successfully compiling such information. Such data, if compiled daily, weekly, or monthly, in every case as quickly as the particular conditions of each industry will warrant, probably reflect actual market conditions with reasonable accuracy . . .

Third: widespread knowledge as to costs among manufacturers in an industry, secured by a confidential exchange of cost data through some agency such as their trade association, likewise has a steadying influence.[1]

An industry in its organized capacity can also help materially to organize its own employment market in order to make more efficient the distribution of labor through the organization of a common centralized labor market. The Department of Commerce study of this subject makes the following excellent presentation of possibilities in this connection:

A trade association can add materially to its service facilities by including among other employee-relations activities an employment service. This would facilitate the bringing of the unemployed workman into contact with the vacant job, with a minimum of delay. If properly conducted, the employer members of the organization list their labor requirements with the association and direct to it men who leave their

[1] Jones, Franklin D., "Business Statistics as a Means of Stabilizing Business," *Proc. of the Academy of Political Science*, pp. 49–50, 53, January, 1926.

employ and also applicants whom they do not engage. Thus the employee-relations staff, having the available workmen and a list of existing vacancies, is able promptly to direct applicants to the plants where their services are in demand. The applicant is saved days of weary tramping from shop to shop seeking the vacancy for which he is qualified, and the employer is relieved of the burden of carrying equipment that is non-productive because of the lack of an operative.

Through its close contact with the industry the association is able to ascertain the probable future labor requirements and to determine the adequacy of the local supply. If that supply is insufficient, it should have knowledge of conditions in other sections and be equipped to bring to the attention of the idle workmen elsewhere the opportunities existing in its district. Conversely, it should be able to give to inquiring applicants information as to possibilities for employment elsewhere when it is unable to provide it locally and to take an active part in the rationing of jobs or other methods of alleviation of distress in times of widespread unemployment.

The trade association better than any other agency sees from its point of vantage the need for developing new workmen to supply the increasing requirements of industry. It should encourage the training of apprentices and should not only point out to the employer his duty in that regard, but, by continual following up, insure that a reasonable quota of young men is constantly under instruction. It has an excellent opportunity for missionary work among young men and boys by extending vocational counsel to them and placing them in line for apprenticeship in those trades or occupations for which they are best fitted. It forms a valuable intermediary between the schools and industry and is of particular aid in effecting cooperation between the employer and the continuation, part-time, and technical schools.[1]

There are other things that industry might conceivably do, which are no doubt illegal under our present anti-trust legislation, but which, under proper public regulation, (assuming a modification of the laws,) would help to steady work.

Producers in different parts of the country could, for example, divide up the markets of the country in cases where that would help. They might agree to divide up rush business and business beyond the capacity of their plants. By sub-contracting orders beyond plant capacity or turning customers over to other firms, corporations would be kept from the temptation of building new equipment for which there would only be sporadic use. The total producing capacity of all the plants in a number of our

[1] "Trade Association Activities," published by the United States Department of Commerce, pp. 130–131, Washington, 1923.

industries, if they were simultaneously operating, would probably over-produce the present effective demand. If the truth of this only could be brought home to employers, workers, and consumers alike, steps in the direction of a more intelligent utilization of existing plant might be undertaken.

Finally, an industry may, as previously pointed out, assume the expense of the distribution of the financial risk entailed in compensating workers during periods of idleness to an extent that many single corporations might not be able to afford. This type of cooperative risk-bearing is well exemplified in the plan in operation in the Chicago men's clothing market. Indeed, the maintenance of idle workers when no work is at hand is just as important—and therefore just as justifiable—as the practice of maintaining equipment or of drawing on surpluses for dividends in periods when none are earned. *Property can outlast the suspension of payment for its use; human beings cannot outlive suspension of their livelihood beyond a few weeks.*

Some cooperative activity between organized groups of workers and of employers in each industry is thus seen to be vitally necessary to a far-seeing program of regularization. For regular work is the outcome of regular demand and stabilized conditions of employment. Both of these are assured only when there are effective cooperative agencies in each industry which will help each company to assure them.

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CHAPTER XXVII

PRINCIPLES OF EMPLOYEE REPRESENTATION

Determination of the terms of employment on which a worker enters a company's employ is typically on one of three bases. Either the corporation itself arbitrarily fixes those terms, or it fixes the terms in more or less definite relation to a negotiative process with an employee organization or committee, or it fixes them as the result of negotiation with a labor union.

Although it already has been stated why it seems that the determination of wages, hours, and production standards by arbitrary company fiat is not sound business procedure, it is perhaps worth while first to summarize the reasons why difficulties appear in the way of the continued use of this method of negotiation. It is then the purpose of the next few chapters to consider the advantages and disadvantages of the two alternate methods—employee representation and collective bargaining with labor unions—as effective business procedures for arriving at satisfactory terms of employment. This division of methods is valid even though not all shop committees have negotiative powers, because such powers are being increasingly included as an integral part of their functioning.

From the legal point of view, all three of the above-named methods of arriving at terms of employment entail the use of the individual labor contract, whether or not any document is formally signed. The contractual relation is in all these cases one of each individual worker with his employer.[1] In the case of the collective bargain, a distinction has to be observed between the

[1] The term "yellow dog contract" has been applied to individual labor contracts in which the worker is required to make explicit promise not to affiliate himself with a labor organization. Such contracts have been used in some cases by employers whose zeal for the open shop has been especially aggressive. Although the legal status of such contracts has been called into question, a number of courts seem to have sustained the right of the employer to make this a condition of employment if he so desires. It seems that this feature of the contract is usually not defensible from the point of view of good personnel policy.

memorandum of the terms of employment to be applied, that is, the collective agreement itself, and the implicit or explicit individual labor contract, involving the application of those terms when each worker is hired.

A collective contract would only exist where a specific group of workers undertakes to perform a specified task for a specified return. Aside from a few plants in which foremen contract with a group of workers in this way, there are as yet hardly any collective contracts in force in this country, although this is a form of negotiation which has had some little vogue in Europe.

Assumptions Underlying Managerial Determination of Terms of Employment.—The reasons against the continued use of exclusively managerial determination of all terms of employment are best set forth by showing the impossible assumptions which it carries with it. Without realizing it, the company whose policy it is to decide its terms of employment and which leaves it exclusively in the hands of its managers to discover and correct maladjustments and grievances which may arise, tacitly makes several large assumptions. It assumes, in the first place, that the company *can* know what terms of employment are for the best interests of the employees, and can be responsible for protecting those interests adequately at all times. The implication is that the company announces its terms, and if workers knowing of them do not approve, they do not need to accept employment. If they do approve and accept employment, it implies that the company will be able to have a competent agent present at every time and place where friction or maladjustment with the workers may arise. Or failing this, it implies that the company will be sure that each employee will dare to and be able to voice effectively to the management any grievance or difficulty which arises in the agent's absence.

Logically, this type of dealing assumes omnipresence and omniscience on the part of the managers regarding workers' interest, maladjustments, and difficulties. Stated in this way, this method of adjustment is seen to place a responsibility upon management with respect to a knowledge of the rightness of the terms and conditions of employment which is not only too heavy; it is superhuman. The obvious fact is that no management can assume all this responsibility. Yet it would be necessary to assume it, if the method of completely individual negotiation is to be defended as a sound method of deciding the terms of

the labor contract and of adjusting difficulties arising in the course of its performance.

The second assumption is that the management *will* be responsible for protecting adequately the interests of every worker in its employ. So long as the management finds that it is to the company's interest to protect the workers' interests, and so long as the company knows (by omniscience, intuition, or "mixing around") what those interests are, the wise management will, of course, try to provide that protection. If a time and an issue come when the company does not know the workers' desires, or feels that its desires are opposed to those of the workers, there is then no assurance that the company will act in a manner which it believes to be contrary to its own interest. In fact, it would be unreasonable to expect it to do more than follow its own most enlightened interest. This statement assumes that there are recurring problems on which a disparity of interest and desires among investors, managers, and manual workers may arise. That there is this conflict element is a fact not to be ignored. It seems that whatever may be said about ultimate or long-time interests, the immediate and tangible interests of those three groups, under present industrial arrangements, are at variance on amounts of wages, size of production standards, and hours to be worked per week. The point here is that at the time when a conflict of interests manifests itself in an acute form, it is unreasonable to expect the management to go out of its way to protect the employees' interests. In short, this second assumption of the company's willingness to protect all the workers' interests all the time is one which in practice is contrary to the fact.

The conclusion is that typically, companies cannot and will not adequately protect all the workers' interests, both because they cannot by their own efforts fully know them, and because in attempting to protect them they might be derelict to their own interests. Continuance of a method of determining terms of employment and adjusting grievances by fiat alone thus assumes a degree of protective supervision which it is impossible to realize. It has been said wisely that:

> The rights and interests of each or any person are only secure from being disregarded when the person interested is himself able and habitually disposed to stand up for them.[1]

[1] Mill, J. S., "Considerations of Representation Government," Chap. III.

The third assumption tacitly underlying managerial determination of terms of employment is that no approximation of equality in bargaining power between management and employees is desirable from a business point of view. It seems that the whole problem of the method of negotiation regarding terms of employment can never be carried forward to a really intelligent handling until there is a clear understanding that equality of status as between buyer and seller is as important in the employer-employee relationship as it is over the counter in a retail store.

The fundamental reason why such an equality is to be striven for is that it is only when there is such a basis that there can also arise those other psychological attitudes which are indispensable to permanently sound industrial relations. Only among equals can there be a permanent relationship of loyalty, of mutual confidence, of cooperation. Only thus can a sense that justice is being done be permanently fostered. All of our political and legal institutions operate on the assumption of the equal status and equal dignity of each individual. This underlying conception is not felt to be any longer open to argument. In all commercial relationships between buyer and seller it has come to be regarded as axiomatic that a commercial bargain and commercial relations can be continued satisfactorily only where the opportunity is equally afforded to both parties either to accept or to decline the terms of the bargain. Fortunately, it is now beginning to be recognized in the business world that this same attitude regarding the relative status of the manual worker and his employer cannot be on any different basis if the self-respect of all individuals is to be recognized and if any other condition than suspicion, distrust, and a sense of injustice is to be perpetuated. This country cannot, in short, expect always to run its political life on one set of assumptions and its industrial life on another.

It should be obvious that only among equals can there be a pervading sense of the possibility of obtaining justice when differences arise. A group's conception of what constitutes justice will admittedly change; but that does not alter the fact that what it now regards as justice is vastly precious in its eyes; and nothing so contributes to a deep-seated unrest as the feeling that the terms and conditions under which people work are unjust.

It is true that equality alone cannot create the necessary degree of understanding, confidence, and good will. There must be other deliberate and conscious efforts to supply a basis of common

knowledge, common sharing of the results, etc. Without equality, these other efforts cannot be productive of truly right relations and right attitudes. This is one reason why some of the personnel work being done today proves less beneficial than managers anticipate. Employers must realize that the virtues fostered in a situation where this equality of status is absent are what the philosophers have called the slave virtues—submissiveness, docility with occasional outbreaks of revolt, irresponsibility, and a perfunctory performance of duties except under constant supervision. The continuance of the present master-and-servant relationship in industry cannot on either economic or psychological grounds be expected to yield the kind of results which secure the harmonious operation of our corporate life. To a certain extent it is for managers to choose whether or not they will deliberately cultivate the conditions of a new status under which a more self-respecting and more responsible working-class attitude toward production will be generated. One condition essential to bringing about this sense of equal status is the conduct of the process of negotiation on a basis which is felt to be one of equal power by all concerned.

What methods of group association and inter-relation will bring about such an equality of bargaining power is not at the moment under consideration. A great step forward will have been taken in the thinking of managers when the desirability of establishing this equality is widely admitted. Perhaps one reason for the slowness with which this idea gains ground is that it is supposed to involve certain other ideas not felt to be sound or desirable. The idea of equality of pay, for example, the idea of direct election of supervisory officials, the idea of a greatly relaxed workshop discipline are often falsely tied up in managers' minds with the idea of equality. None of them is necessarily so. In fact, the process of equalizing bargaining power among groups in industry has little if anything to do with the other ideas. As will be shown, there are existing arrangements under which equality is felt to obtain where these undesired attendant conditions show few, if any, signs of developing.

One of the most thoughtful students of current business practices has said, in discussing equality in industry, that we must realize the psychological handicaps of a condition of "power over" as compared with one of "power with."[1] The claim is

[1] See FOLLETT, M. P., "Creative Experience."

made wisely that it is only as group relationships in industry operate, not on the basis of the power of one group over another but on the basis of their joint use of equal power to accomplish their agreed desired ends, that operating efficiency is really obtained. This writer rightly calls attention also to the fact that negotiation is only a means to achieving "functional unity"; namely, a harmonious, corporate whole, in which all are working together for the advancement of known and agreed corporate ends. The entire discussion[1] of this point given below only reenforces the contention that there must, in the first instance

[1] The following is taken from "Scientific Foundations of Business Administration," edited by HENRY C. METCALF, Chap. XII, pp. 188–189 by FOLLETT, M. P.:

"While I believe in encouraging employee associations, while I think it a grave weakness of some systems of employee representation that there is not adequate connection between Works Council and the whole body of workers, still my reason for very strong advocacy of employee association is not chiefly to bring about equal power, but because this helps us to approach functional unity. I should want to make a 'side,' not for a fair fight, not for fighting at all, but in order that it shall enrich the whole, If I were a manufacturer I should want to consolidate my workers, not in order to give them greater strength in a fight, but in order that they should, by conscious unity, be a stronger part of my plant and thus strengthen my whole organization. I think we should never forget that there are two kinds of 'sides.' There is all the difference in the world between controversial sides and integrative or contributing sides. I am interested only in the latter. I differ, therefore, from those people who say that the greatest fairness to the worker is to give him equal power in the bargaining process. My whole business philosophy is different from this. I think we owe both the worker and ourselves more than that.

"I trust that the difference between this 'equal power,' so much talked of, and the power-with we have been considering, is evident. Equal power means the stage set for a fair fight, power-with is a jointly developing power, the aim, a unifying which, while allowing for infinite differing, does away with fighting . . .

"Yet, I do not want to be misunderstood on the matter of collective bargaining. It is of course necessary at present; without it both wages and working conditions would fall below even minimum standards, and of course if we do have bargaining we should give the two sides equal advantage as far as possible. I am trying to say merely that I think it is wise to decide, before we begin on any reorganization of our business, whether we believe in collective bargaining as an *ultimate* aim, or whether we accept it for the moment and surround it with the fairest conditions we are able to, at the same time trying to make our reorganization plan look toward a functional unity which, if it does not abolish collective bargaining (it may not) still will give to it a different meaning from that which it has at present. The best point about collective bargaining is that it rests on conference and

and as a next step, be built up some method of negotiation in which equality of status is a reality.

The upshot of this discussion is that the assumptions upon which exclusively individual negotiation rests are untenable from the business as well as the social point of view. The available alternatives are two: some form of employee representation, and collective agreements with labor unions. The first of these is considered in this and two subsequent chapters, and the second thereafter.

Development of Employee Representation.—Perhaps no phase of managerial activity looking to improve personnel relations has developed more rapidly in the last ten years and on the whole more solidly than employee representation. The war unquestionably accelerated this progress, although there had been some form of employee association in a few companies prior to it, and many companies which embarked on shop committees during the war under compulsion dropped them when pressure was removed.

Long before the war there were, of course, shop organizations working as local representatives of collective agreements with unions in the building, printing, needle, coal mining, and other trades. These were and still are a logical and wise part of a hierarchy of joint bodies beginning with one shop, going to city, to district, and finally to national bodies. The phrase "employee representation" as generally used means rather those organizations of employees *within one company only*, designated by such terms as works councils, shop committees, employee associations, company unions, company brotherhoods, etc. At present two clearly differentiating characteristics of these bodies stand out. They are almost always initiated by the employer; they are confined in membership to the employees of one company. They are thus distinct in form and method from what in this book is spoken of as collective bargaining. For there the workers are affiliated with a trade or labor organization including in its membership employees of other companies.

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agreement (there are methods of adjustment, as arbitration, which do not), but I believe in conference not as an episode of war, but as one of the necessary activities in the process I have called a functional unifying. Would not the unqualified acceptance of collective bargaining as now generally understood commit us to the view that industry must remain at the mercy of shifts in "power" from employer to workman, from workman to employer? And is there any hope for a steady and wholesome progress with that condition of things?"

Employee representation developed from 1919 to 1922 in many of the largest and most successful companies in the country. Since then the growth while not so rapid has gone on until there are in 1926 somewhere in the neighborhood of a thousand employee representation plans, large and small, including well over a million workers in over two hundred companies.[1] Notable in this connection is the consistent spread of the development and the relatively small number of plans given up in the post-war period. One reliable estimate places the number of plans abandoned between 1919 and 1924 at 194.[2] Yet even this figure is misleading because of natural causes which entered to bring about abandonment, like the closing of plants due to the depression of 1921–1922, and the abandonment of plans introduced impulsively by the government in war time.

The fact seems to be that here is a form of organization and negotiation which has met a real need and met it with sufficient satisfaction to all affected so that its continuance and extension are assured.

[1] The following is taken from BURTON, E. R., "Employee Representation," p. 30:

"Some twenty-five to thirty companies adopted representation plans voluntarily during 1918 and a somewhat larger number during 1919. It was during these years that some of the better known plans were installed, such as, for instance, those of the Standard Oil Company (New Jersey), Standard Oil Company (Indiana), Procter & Gamble Co., Morse Drydock and Repair Company, Bethlehem Steel Corporation, Midvale Steel and Ordnance Company, Youngstown Sheet and Tube Company, International Harvester Company, Washburn Crosby Company, Westinghouse Electric & Manufacturing Co., Willys-Overland Company, Goodyear Tire & Rubber Co., United States Rubber Company, and the Yale & Towne Manufacturing Co.

"The spread of the movement has continued unabated since 1919, adding to the list such concerns as seventeen of the associated companies of the American Telephone and Telegraph Company, Amoskeag Manufacturing Company, Armour and Company, Borden's Farm Products Company, Brooklyn-Manhattan Transit Company, Commonwealth Edison Company (Chicago), Commonwealth Steel Company, Consolidation Coal Company, Davis Coal and Coke Company, Dennison Manufacturing Company, Eastman Kodak Company, National Cash Register Company, Pacific Coast Coal Company, Pacific Mills, Peoples Gas Light & Coke Co. (Chicago), Phelps Dodge Corporation, Pullman Company, Sheffield Farms Company, Sperry Gyroscope Company, and Swift & Co."

[2] "The Growth of Works Councils in the United States," *Special Report*, 32, National Industrial Conference Board, Inc., p. 5.

The Reasons for Employee Representation.—Since employee associations result from the employer's initiative, the reasons why they have developed and the positive function they may be serving in business organization are best suggested first by examining the employers' motives and then by evaluating the results obtained.

The motives of employers involved here appear to be numerous and often somewhat mixed, including some which seem negative in character as well as those which are positive.

The principal negative motive is fear—fear of the action of trade unions. The claim is frequently voiced that "if I give my workers a voice in controlling conditions in our shop, there will be no place for any outside organization." The idea is to anticipate the union organizer, to create an intra-plant collective bargain, "to deal only with my own men." It is the honest conviction of many employers that they can not only preclude union action by employee representation, but that they can deal more satisfactorily with their own workers in the absence of all outside interference.

Of the positive motives there are several—some which stress the production arguments, some the human. One of the frequent causes of employers' interest in the representation movement is the desire "to get production on a better basis." Indeed, there is a danger that employers who are handicapped by old plants, worn-out equipment, or inadequate methods of control and superintendence will try to make shop committees responsible for the correction of shortcomings which in reality the management should remedy. Casting about for "a solution of the labor problem" which will save them the hard work of competent management, some employers have expectations here which it will almost surely be hard for them to realize on.

One aspect of employees' interest in the production problem which is far more valid and positive is that already considered in our discussion of job analysis and the introduction of production standards. Employee organizations do unquestionably supply the setting in which joint efforts to improve the quantity and quality of output may be made with the genuine cooperation of the employees. Many companies have seen that there is a psychological connection between representation in shop affairs and interest in work. They know that the experience of plants where workers have conferred on production problems has been decidedly beneficial to production and morale.

Another prevalent motive is to open up a channel of communication for the handling of the grievances and complaints of both managers and men, and to inform the workers as to what the management is intending to do. Sometimes this informing the workers extends into seeking their opinion and advice. Sometimes it goes further and seeks their consent, and sometimes it seeks also a truly joint determination of new policy and procedure.

Farsighted industrial leaders are also finding in the representation movement an educational medium of great value. They realize that employees, if they are to take interest, assume responsibility, display initiative, and share further in industrial control, must know the inner workings of industry and must know how to advise with those in executive positions as to what policies should be adopted. They see great educational benefits in group action which gives employees in some organized way a knowledge of management and a chance to deliberate with the management. Employee representation, they believe, may be the cradle of industrial democracy, as the town meeting was of political democracy.

The purpose of better human relations in industry is in one sense an educational purpose—instructive to both management and men in a point of view which makes for cordial dealings. If it is true that certain interests of the men diverge from those of management, there is no reason why a consideration of those divergences may not be carried on amicably, or why a working arrangement may not be reached in conference, which will be to the temporary satisfaction of all concerned. Unquestionably, the most reliable way to maintain this atmosphere of personal good feeling has proved to be the method of direct, face-to-face discussion.

Moreover, since at least half of the matters which both sides are interested to see well administered are matters of undeniably common interest, there is ground here also for the cultivation of mutual understanding and personal amiability. Managers should bear in mind that industrial differences—except those arising out of personal quarrels with foremen—*are essentially impersonal in nature;* and they can be kept so *if only the parties involved know each other sufficiently well in a personal way.*

In cultivating this personal intimacy it is the management which must necessarily take the first step, so that if any element of personal acrimony enters during a consideration of differences

between managers and the workers, it is largely to be blamed upon the managers for not keeping the channels of personal knowledge, confidence, and contact wide open before as well as during the negotiations. Employee representation may admirably serve this purpose of establishing personal contact, if only it is properly directed and guided.

The first article in the constitution of one plan well describes this primary purpose when it declares that the plan aims:

> To establish relations upon a definite and durable basis of mutual understanding and confidence. To this end the Employees and the Management shall have equal representation in the consideration of all questions of policy . . . .[1]

There is another penetrating purpose of those companies which realize that individual dealings between a large corporation and each of its workers is today an anachronism because it involves a great inequality of bargaining power. It is, therefore, bound sooner or later to give rise to a feeling of unjust treatment on the part of the workers. Such companies realize that "the good will of labor is a collective good will"—that is, that the sense of fair and cordial dealing is secured only when dealings are with the workers as an organized group. Professor Commons offers as the reason for this, the fact which most progressive employers are already prepared to concede, that "the employer always speaks as a representative of organized capital. Unless the laborer can speak as a representative of associated laborers, he cannot speak with equal power."[2]

Whether or not intra-plant group action can supply the necessary equality of power and status is a question which will have to be considered in discussing the values and shortcomings of the representation movement. Here the fact is stated only that certain employers believe that equal bargaining power can be so achieved, or at least bargaining power as equal as they think it ought to be.

Another thoughtful student in asking why progress in fostering cooperation comes so slowly says:

[1] Harvester Industrial Council *pamphlet*, Mar. 10, 1919. A plan which is carefully thought through in all its details. It will repay thoughtful study. It is reproduced in full in the Appendix to "A Course in Personnel Administration," by Ordway Tead, Columbia University Press, 1923.

[2] Commons, John R., "Industrial Goodwill," p. 48.

A reason for this situation is found in the lack of understanding on the part of industrial executives that to build *morale* or the *spirit of the organization*, their working people must be appealed to in the mass and not as individuals.[1]

It is widely recognized today that successful group morale is based on the right attitude of the individuals composing the group. Employee representation has done much to create an attitude of confidence in and understanding of the objectives of the corporation and of the good will of its leaders.

A forceful summary of managerial objectives based on extended conference with numerous company heads is the following:

A. Double-track channel of communication for exchange of information, opinions, and desires.

B. Procedure for *prompt* adjustment of individual and group misunderstandings, complaints, and grievances.

C. Procedure for collective negotiations (unhampered by external influences, or irrelevant issues making for fruitless controversy), regarding wages, hours, and other terms of the employment contract.

D. Education of Employees:

1. Of the rank and file, to appreciate in some degree the difficulties of the managerial functions not only regarding wages, hours, and other matters usually regarded as directly affecting employees, but also with reference to larger policies of finance, production, marketing, and public relations.

2. Of persons in supervisory positions who, through serving as management representatives on joint conference committees, may acquire a broader comprehension of managerial responsibilities particularly those affecting personnel relations.[2]

A decidedly useful corrective to much thinking about the reasons for employee representation has been supplied in a discussion of the subject which points out that its basic justification is rather that it is an inherently logical, indispensable, and functionally sound feature of any organization which is seeking to attain working harmony among its members. All the other reasons advanced above are to a greater or less degree valid, says one commentator,[3] but until employee representation brings

[1] Alford, L. P., "The Status of Industrial Relations," *Industrial Management*, July, 1919.

[2] Burton, E. R., "Employee Representation," p. 67.

[3] Follett, M. P., in a lecture to be included in the forthcoming book, "Business Management as a Profession," edited by H. C. Metcalf. This penetrating discussion should be read in its entirety, as it is impossible here to do it justice.

management to a proper conception of its own responsibilities it has not been of greatest value. The responsibility to be realized here is that of providing a means for joining the managerial capacity of the workers with the managerial capacities of executives.

Functional authority, pluralistic responsibility, requires conference as its method; and genuine conference requires on the part of management very different qualities from those demanded by bargaining, with its concealments, its use of economic power, its aim of compromise. Here in the joint committees executives and workers meet, or should meet, to get from each other the special knowledge and experience each has; also to get to know each other's points of view, desires, aims. More than this, they should meet to pool their knowledge and experience, to unite their desires and aims. For this are needed the kind of men who are able to make vital contacts, able both to give themselves and to learn from others . . .

Secondly, the conference method demands from managers the ability to *explain;* and I mean by this not merely or chiefly the ability to state a case, although that also is valuable; but even more than that, the power to analyze a situation. Of course, the man who does the analyzing reaps as great an advantage as his hearers. The fact that managers have to explain to employee representatives a good deal about the running of the business makes them look at some of their problems a little differently. If they cannot make out a good case, they see that there are things to be changed or greater efforts to be made. At any rate they see their problems more clearly when they have to meet employee representatives and place certain situations before them. In a study on employee representation, it is stated that it is coming to be the practice in many manufacturing companies for the chief executive of the plant to report regularly, usually at the monthly meeting attended by the employee representatives, on the conduct of the business—new orders, trend of manufacturing costs, etc. We cannot doubt that this makes a new demand on the chief executive far beyond that of merely presenting his case.

In the third place, the conference method demands from managers the ability to make differences a unifying not a disruptive factor, to make them constructive rather than destructive, to unite all the different points of view not only in order to have a more contented personnel, but in order to get incorporated into the service of the company all that everyone has to contribute. There are only two things to do with the energy, the inventiveness of your workers—let it gather force against you or for you. It seems more sensible to make use of it; and in the conference committees you have your chance . . .

I think, therefore, we may say that whereas the employee representation movement began partly as a concession, partly to make things go more smoothly, partly to counter trade unions, today it is considered by many men as an asset, as an essential part of sound organization; but it needs a certain type of manager to make it an asset. The fact that employee representation and the study and development of business management are two parallel movements seems to me very significant. At the same time that a share in management is being given to workers, we find that there is a rapidly increasing sense of the need of executives with a training which shall enable them to turn to account labor's possible contribution to management. And what I want to emphasize particularly is that the willingness to do this, the clearness of vision which makes a manager see the advantage of doing this, is not enough. He must be expert in the methods which will enable him to deal with case after case as they arise in labor-management cooperation. The primary thing he has to learn about his dealings with labor is not how to "treat" with labor, but how to use labor's ability, yes even labor's aspirations, as some one has pointed out, as an asset to the enterprise . . .

The chief interest to me in the acceptance of the fact that labor can make constructive contributions to management is the principle at its very heart and core that management is not a fixed quantity. When we used to talk of "sharing" management, it was because we tended to think then of management as a fixed quantity. We thought that if someone was given a little, that amount had to be taken from someone else. Whereas the successful business is that one which is always increasing management throughout the whole enterprise in the sense of developing initiative, invention. Any manager who is looking with far-seeing eyes to the progress of his business, wants not so much to locate authority as to increase capacity. The aim of employee representation, because it should be the aim of every form of organization, should be not to share power but to increase power, to seek the methods by which power can be increased in all.[1]

Types of Employees' Organizations.—From the point of view of structure there are two distinct types of employee representation plans which are being introduced:

1. The plans of *joint action* of managements and employees in councils, committees, conferences, assemblies, etc. In this volume all such plans will be spoken of as *shop committee* plans.[2]

[1] FOLLETT, M. P., *Op. cit.*

[2] Neither of these definitions is offered as either representative of universal usage or as necessarily the best possible usage. They are simply the terms with which it is here agreed to designate certain types of organization.

2. The plan of an employees' association, cooperative association, or brotherhood, in which all employees are usually included. This plan will be designated in our discussion as the *employees' association* plan.[1]

Some slight differences in the functions and methods of these two are discussed in the next chapter.

General Principles Underlying the Introduction of a Plan.—Up to a certain point the problems of adopting and administering shop committees and employees' associations are the same; certain principles of procedure are common to both.

The first principle—the one which should preface every discussion of method—is that the best forms, methods, and mechanisms known are of little avail if they are not animated by a *sincere, genuine, and liberal intention.* "That which attaches people to us," said Matthew Arnold, "is the spirit we are of and not the machinery we employ." Similarly, a present-day student of industry well says:

> I believe that the application of right principles never fails to effect right relations; "that the letter killeth but the spirit giveth life"; that forms are wholly secondary, while attitude and spirit are all-important; and that only as the parties in industry are animated by the spirit of fair play, justice to all and brotherhood, will any plan which they mutually work out succeed.[2]

In other words, there is little use for dogmatism in discussing plans of structure. We need rather to consider at first the outstanding points of approach which will help give tangible evidence of a sincere spirit—assuming, of course, that a sincere and liberal purpose is present.

Perhaps the surest way to evidence this right spirit is to have it clearly understood from the start, implicitly and explicitly, that this is not a trade union defeatist move.

[1] In order that there may be no confusion, examples of each type are cited below:

1. International Harvester Company, Chicago, Ill.
   General Electric Company, Lynn and Pittsfield, Mass.
   Commonwealth Edison Company, Chicago, Ill.
2. William Filene Sons Company, Boston, Mass.
   Philadelphia Rapid Transit Company, Philadelphia, Pa.
   Leeds and Northrup Company, Philadelphia, Pa.

[2] ROCKEFELLER, JOHN D., JR. "Representation in Industry," Address at Atlantic City, Dec. 5, 1918.

A clause in the plan along the following lines is valuable in this connection, to just the extent that the company's actions do nothing to belie it:

> The Employees' Cooperative Plan shall not interfere with existing or future agreements between trade organizations and the Company, nor abridge the right of any trade organization to deal separately with the Company.[1]

From an English source comes also the same warning:

> In an industry where the workpeople are unorganized, there is a danger that works committees may be used, or thought to be used, in opposition to trade unionism. It is important that such fears should be guarded against in the initiation of any scheme. We look upon successful works committees as the broad base of the industrial structure which we have recommended, and as the means of enlisting the interest of the workers in the success both of the industry to which they are attached and of the workshop or factory where so much of their life is spent. These committees should not, in constitution or methods of working, discourage trade organizations.[2]

A second essential step in giving evidence of the right spirit is to have the employees *consider with the management from the start, what the plan shall be.* Their interest, their belief in the management's good intention, their sense of the satisfactoriness of the finished plan—will all be greatly enhanced if the management takes it up with them before any plan whatsoever is put on paper. In an address concerning the adoption of the Harvester Industrial Council, Cyrus McCormick Jr., said on this point:

> So pleased are we with the operation of this plan that the only thing I can say about it is that if we had to do it all over again—and I advise those who follow to take this lesson from us—we would not devise a plan and then ask a workingman if he desired to accept it, but we would begin by asking him if he wanted a plan of "industrial democracy," and if he replied affirmatively, we would ask him to come in and help devise a plan with us.

Similarly, another firm faced with the question of how to "put it up to the men" tells of the following conclusion voiced by an influential executive:

[1] Burton, E. R., "Employee Representation," p. 67.

[2] "The Industrial Council Plan of Great Britain," Whitley *Report*, 19, p. 34, Reprint by Bureau of Industrial Research, New York.

Why not be frank? Why not call a mass meeting of the employees, for example, half an hour before closing time, and place the whole matter before them just as it is? . . . Tell them that you do not want to "put anything over," and that you want them to select a committee in their own way to discuss it with you, a union or non-union committee—any kind of committee so long as it is fairly representative. Put all your cards on the table. Ask them to put theirs down, too.

Well, the directors took my advice, and I am glad to report that it succeeded.[1]

We agree with these conclusions except for the important qualification that there will be companies where, usually because of long traditions of managerial autocracy, the employees will not express (and perhaps not even be conscious of) any desire for representative machinery. In such cases the complacency, or rather hyper-developed submissiveness of the workers, will have to be modified before any plan of employee representation will succeed.

John Stuart Mill, whose essay "Representative Government" should be read by every manager who is considering putting in an employee organization, says relevantly to such a situation of passive acquiescence:

It is also to be borne in mind that political machinery does not act of itself. As it is first made, so it has to be worked, by men, and even by ordinary men . . . It needs, not their simple acquiescence, but their active participation; and must be adjusted to the capacities and qualities of such men as are available. This implies three conditions. The people for whom the form of government is intended must be willing to accept it; or at least not so unwilling, as to oppose an insurmountable obstacle to its establishment. They must be willing and able to do what is necessary to keep it standing; and they must be willing and able to do what it requires of them to enable it to fulfill its purposes.

Preliminary educational work of a personal sort among the employees or the leaders of employees is indispensable to a sound beginning of shop committees. "*A people*," says Mill later in the same essay, "*may be unprepared for good institutions; but to kindle a desire for them is a necessary part of the preparation.*" Discussion among workers may be started profitably as to the need for a plan, the best procedure, ways, and means of securing

[1] STODDARD, W. L., "Installing a Shop Committee System," in *The Survey*, July 12, 1919, New York.

an understanding adoption of it. Among personnel managers agreement upon the following point is universal: there must be painstaking personal educational work prior to proposing the idea of employee representation and prior to the adoption of the proposed plan. Such personal conference takes time. Hence, the next principle, which relates to the administrative oversight of employee organizations.

The administration of all work incident to the adoption of employee representation should be placed with the personnel executive; and he and his staff should take time enough to do the necessary follow-up work at every point. Even after the plan is in operation there is imperative need for some managerial leadership, or at least for someone in the management to have direction over the management's part in the plan; and this person should be someone from the personnel executive's office.

This is so far recognized in many plans that they specifically provide that the personnel department shall handle the administration of the company's side of the plan.

The plan should be put into writing for final action; and this written plan should make provisions to cover the items of procedure discussed in the next chapter. After it has been favorably acted upon by management and men, it then will be the working constitution of the plant. Matters likely to require frequent change, such as hours, rates of pay, and other details of terms of employment, should preferably not be included in the constitution. Of course they should be definitely formulated and agreed to; but they correspond more to statutes and ordinances than to organic law.

The permanence of employees' interest in the plan is likely to be in proportion to the degree of responsibility exercised by them; and in proportion to the amount of authority vested in the representative bodies created. This principle seems to argue in favor of joint bodies on which both sides are equally represented. For under such conditions of joint participation, a considerable measure of both responsibility and authority may be safely exercised by the committees at an early date after their creation.

There is some question as to how detailed the statement of responsibilities and the grant of authority should be. If a specific understanding on these matters can be agreed to by both sides when the plan is in preparation, that simplifies the immediate problem. Indeed, many wise managers have taken the view

that employee representation is not worth bothering to introduce if a genuine grant of responsibility is not made, especially on the subject of deciding terms of employment. This seems the sound view. Yet other managers who do not see that far can profitably introduce a plan which is only advisory in power and then decide upon a further grant of power as experience proves that it will be responsibly exercised by employees. In either case the important thing is to have the extent of joint responsibility defined as clearly as possible.

Some of the best employee representation plans provide that *all matters of mutual interest* may properly be considered by the employees' bodies. Such a provision is highly desirable, if the management is prepared to go that far. For it is in general found true that employees only demand consideration of problems which they think affect them; and that *usually they ask to exercise authority only when they are close to the point where they are competent to exercise it wisely.* This last statement is open to exceptions; but the history of the rise of all groups to self-government tends to bear it out.

There is another point which those managers who want to "get employees to take the whole responsibility for production off my hands" should especially note. Representative bodies, by the nature of their structure and their function, should *not* be administrative bodies. An administrative body may and often should be representative; as, for example, a plant's operating committee may include representatives of plant, process, personnel, etc.; but a representative body has always been conceived by discriminating students as of a different essence. Indeed the following legend might well be written in letters of gold on the walls of every room where shop committees meet:

> The proper duty of a representative assembly in regard to matters of administration is not to decide them by its own vote, but to take care that the persons who have to decide them shall be the proper persons. Instead of the function of governing, for which it is radically unfit, the proper office of a representative assembly is to watch and control the government, to throw the light of publicity on its acts; to compel a full exposition and justification of all of them which anyone considers questionable.[1]

[1] See Mill, J. S., "Considerations on Representative Government," Chap. V: The Proper Functions of Representative Bodies, which is a gem of penetrating analysis—all of which is applicable to the problem of industrial government.

There is always a danger that the policy-deciding and the policy-carrying-out phases of the work of employee representation will be confused. Shop committees or the executive committee of an employees' association may have certain executive responsibilities with which they are specifically charged, and to this extent a representative body does become an executive body but when it comes to carrying out policies, there is need for great care, for in this direction committees, if without competent leadership, are apt to display a greater capacity for talk than for action. Every committee must look to someone or another of its members *to do the work.* "No body of men, unless organized and under command, is fit for action in the proper sense." *One executive task which a committee can effectively exercise is the choice of the individuals on the committee who are to do certain parts of the job which it has been agreed should be done.* People are in the habit of lamenting over the inefficiency of representative institutions, and of attributing their inefficiency to the fact of representation. More accurately, the inefficiency is frequently due to applying the principle of representation *in relation to the wrong kind of activity.* Mill's further caution is thus in special need of emphasis:

> Nothing but the restriction of the function of representative bodies within these rational limits, will enable the benefits of popular control to be enjoyed in conjunction with the no less important requisite (growing ever more important as human affairs increase in scale and in complexity) of skilled legislation and administration.

A further tremendously important prerequisite to a successful employee representation plan is that the majority of the foremen shall be fully persuaded of its soundness and be prepared to cooperate in its operation before it is introduced. This may be facilitated both by having the personnel executive discuss the matter with the foremen individually and in their foremen's council, and by having it clearly set forth that the foremen may function in the operation of the plan as management representatives.

Finally, the company which starts employee representation should be prepared to go whither the way leads. Nothing has tended so effectually in times past to discredit all forms of "management-sharing" with employees as their experience of having employers abandon or emasculate experiments as soon as

they felt that matters were getting beyond their control. The management of every corporation venturing into this field should first ask itself: "Are we prepared to relinquish any of our control and authority in any direction?"

Employers should realize that they are calling into consciousness forces which will gather power with time and experience. The new power created may be used constructively or in the opposite way, depending on its direction and the kind of resistance it meets. *But there will come a new sense of power; and it will be exercised.* Nor will its exercise cease at some point the employer may have arbitrarily set in his own mind. This is not said in any spirit of discouragement, but rather the contrary. The whole experience of recent years has been that this new power and new mobilized interest and enthusiasm have been positive forces of tremendous value to the corporation; but that value is only best realized where there is intelligent, sympathetic, and constant leadership on the part of the management.

These, then, are the general problems of policy, purpose, and principle which managers should consider at the outset. If, after due consideration, their decision is still in favor of working with their employees through some plan of representative organization, it is next important for them to decide the matters which should be included in the written constitution of the plan.

Selected References

See references at end of Chap. XXIX.

CHAPTER XXVIII

THE PROCEDURE OF EMPLOYEE REPRESENTATION[1]

The pervasive influence of the right type of organized relations between the directive force and the manual workers has never been better expressed than by the philosopher J. S. Mill who said:

> The nature and degree of authority exercised over individuals, the distribution of power, and the conditions of command and obedience are the most powerful of the influences, except their religious beliefs, which make them what they are, and enable them to become what they can be.

In considering a plan for employee representation, there are always two distinct, although not inseparable, aspects to be held in view—the aspect of using the employee organization as an *educational medium*, and of using it as an *administrative arrangement* for conducting the "collective affairs of the community in the state of education in which they already are." Unless both are borne in mind and both used as the basis for specific activities, employees' organizations will not make the advances nor show the results which are rightly to be expected of them.[1]

That is why a consideration of detailed method is valuable here, even if no provisions can be laid down as final or universally applicable. The items discussed in this chapter are typical of those found in the best plans now in operation. Not all of them are necessary in every plan, perhaps, but as they stand, they form a fairly complete list from which a choice, governed by local conditions, may be made.

Provisions of a Good Plan. (*a*) *Purpose.*—The preambles of a number of the plans furnish a statement of purpose of which the following is typical:

[1] With the author's permission use is made in this chapter of material from a recent study of employee representation made for the Bureau of Personnel Administration by E. R. Burton.

The Employees and Management . . . undertake by the adoption of this plan of an Industrial Council to establish these relations upon a definite and durable basis of mutual understanding and confidence.[1]

Another good statement is that of a large public utility:

We, the employees, the management, and the directors, of the Commonwealth Edison Company, realizing that in a large organization it becomes increasingly difficult to maintain the close personal contact between the employees and the management which was possible in our organization when it was smaller, and desiring to continue and develop the mutual understanding and harmonious relations which have prevailed in the past, do hereby jointly adopt the Employees Representation Plan provided for in this Constitution.[2]

(*b*) *Definition of Employee.*—This section defines who can vote and hold office; usually it confines this privilege to those *below* the rank of assistant foreman.

(*c*) *Right to Vote.*—Only employees as defined in (*b*) may vote; with provisions in some cases for a minimum age limit, and minimum length of service (usually two or three months). Both provisions seem reasonable and sound.

(*d*) *Right to Hold Office.*—The right to hold office is usually limited by requiring a previous period of employment (a year is used in some of the best plans); by requiring a minimum age (of twenty years). In some cases there is the further requirement of American citizenship, or of literacy in the English language. It seems that although the second of these requirements is presumably included in the first, under present conditions it is a more relevant and reasonable requirement than the first.

(*e*) *Basis of Representation.*—Practically all plans provide for districting the organization either by departments, or by crafts, or by geographical divisions. In a single plant a departmental basis is used unless each department comprises more than one hundred workers. The number of delegates from each department depends on the size of the department, the nature of the plan, the number of departments, and the total number of employees. In a plant with one thousand employees, fairly equally distributed among the departments, it would seem that one representative per department usually would assure adequate

[1] Harvester Industrial Council, *pamphlet*, Mar. 10, 1919.

[2] Employes Representation Plan, *pamphlet*, of the Commonwealth Edison Company, Chicago, Mar. 22, 1921.

representation. The idea of having one delegate to every one hundred employees or major fraction thereof may, however, be usefully applied in a large department and in large plants.

The important end to achieve under any condition is that one delegate speaks for only as many people as he can have convenient access to. If the number of this constituency goes over one hundred (which is too many in small plants), his voice is in danger of not being fairly representative. Reconciled with this object should be the purpose of keeping the *central* committee as small in size as is consistent with adequate representation. This body should not have more than forty; and the smaller it is, the more effective will be its deliberations.

Where, as is sometimes the case, there are several crafts in the shop, whose members belong to craft unions and desire representation on a craft as well as a departmental basis, there is much to be said for electing at large one or more delegates from each unionized group. For example, in a cotton mill in which the weavers and loom-fixers were strongly organized there might be nominated from these two union groups candidates for each union to be voted on either at large or by the affected craft itself. In this way there would be on the committee one delegate expressly representing each organized craft.

In some plants even in the absence of unions, a craft basis of representation may be more equitable than a departmental basis. Or a combination of both bases may be used.

Where women predominate in a department, it will usually be well for a woman to represent the department, although if this can be achieved without special statutory provision it is more desirable. If women are in a minority in several departments, it may be well to have a number of women delegates, elected by the women at large.

In addition to each local works committee, there should be a company council in all large corporations which have several plants. This should bring together representatives from the entire corporation at stated intervals, annually, or oftener. On such a council there should be at least two employee delegates from each plant, although a representation based on the number in the plant (one delegate to a given number of workers) may also be used.

(*f*) *Representation of Management.*—The management should appoint a number of executives to represent it, equal in number to

the workers' group. At least a fourth of the management delegates *should be foremen* in order to assure them an active place on this body. So far as possible, the head executive himself should participate as a representative.

(*g*) *Method of Nomination.*—The important thing here is to make everyone feel that nomination is easily available for any candidate desired by any group, however small. Nominations should be held several days before the election; a week seems a reasonable time. They will be most satisfactory if a blank ballot is used and the voter writes the names of his nominees. The number of nominees declared nominated may be several times the number to be elected.

The officials who are to supervise the balloting both for nominations and elections should be a joint committee equally representing management and men.

(*h*) *Method of Election.*—This joint committee should work out definite rules and procedure with reference to the following steps:

1. Posting on bulletin boards the names of all eligible voters, indicating which are also eligible for nomination.
2. Posting notices announcing time and place of primary elections (or rules regarding filing of nominating positions), and of final elections, describing proper use of ballots.
3. Preparation of ballots, tally sheets, ballot boxes, voting booths, etc.
4. Appointment of election clerks, tellers, and judges.
5. Counting ballots and announcing results.

Nominations should be posted for several days before elections. We regard it as advisable, however, to reduce by a primary election the number of candidates to twice the number to be elected.

There should be provided a place for the election which is convenient and free from "undue influence," and a definite time during which all can have access to the polls, and a secret ballot. An election held inside the plant generally results in getting out a larger vote.

Results of elections should be posted promptly and the names of the elected delegates should be permanently posted in the department, so that all new employees will know through whom to act if difficulties occur. In case of a tie vote the employee with the longest period of continuous service is usually declared elected, unless a new election is provided for.

(*i*) *Term of Office.*—The term of office should be 6 months, or preferably a year. The semi-annual elections of the several departments should be so arranged that half the representatives retire at one election and half at the next. The value of this continuity of experienced membership is great.

There should be no restriction against re-election of the same individual, provided he satisfactorily represents his constituents.

Provision should be made for a special election in the event of an employee representative leaving the employ of the company.

(*j*) *Recall.*—It should be possible to recall an undesirable representative without too great effort. A good provision is to require a petition of recall from a third of the voters of a department, and a majority vote on the recall itself.

(*k*) *Composition of Committees.*—The company council, works committees, and standing committees should, as already suggested, be equally representative of both sides; but there should be no restriction upon separate meetings of employees alone.

It will often be found efficient in large plants to have an executive committee of the work committee, which shall really be the steering committee.

Much of the actual work of shop committees will be done more thoroughly if there are subsidiary standing committees. These either may be named in the plan, or preferably be created from time to time as the need arises. To list at the start a number of special committees over matters in which little interest exists at the time, is to pile up too cumbersome a structure. These committees from the very nature of their work should be joint committees appointed by the works committee, but it will be well to make membership on them possible for others than members of the works committee. The job analysis committee and the wage rate committee might well fit into the committee scheme at this point.[1]

It is important to have the terms of reference of matters to special committees clear—and a time limit set in which to report back. Especially where grievances are under consideration, time is the essence of the difficulty and promptness should be kept always in view.

(*l*) *The Conduct of Meetings.*—Meetings of works committees should be held at least monthly, and provision should exist for the calling of special meetings in the interval if the occasion demands.

[1] See Chaps. XVIII and XXIII.

Meetings of the central works council should be regularly held at monthly, bi-monthly, or quarterly intervals, and be attended by the chief plant executive or the local factory manager, as the case may be. A recent practice that is becoming customary in several large corporations is to hold an annual conference to be attended by the operating executives and the general officers of the corporation.

Meetings should be held on company time, preferably in the late afternoon. Employees should be reimbursed at their usual rate for time lost from work.

The costs incident to meetings may well be met by the company, which should also provide a place for holding the meetings.

The chairman of the works committee should be selected by that committee. The device of having each side choose a chairman and having them preside at alternate meetings is sometimes used. The use of the personnel manager of the company as committee chairman seems to be desirable only if this is definitely urged by the employees and if this executive is of broad enough gage to see all around the problems which come up. He doubtless can perform a greater service to all parties by simply being an *ex officio* management representative.

At separate meetings of the employee members of joint committees an employee chairman should, of course, preside.

In the case of a company council composed from several plants the chairman may without impropriety be the president of the corporation, in which event he should have no vote.

(*m*) *Method of Voting.*—Two broadly different methods of voting on committees are in use: The majority vote of each side taken in separate caucus recorded either as one vote or as the actual number of votes; and the majority vote of the whole committee, each member voting individually. The reasons urged for the second method seem on the whole to outweigh those against it.

Many of the questions which shop committees act upon do not raise sharply issues concerning the divergent interests of managers and men. Even when those divergent interests do have to receive attention, a proper committee procedure can assure a fair consideration, especially when the chance for appeal exists. In other words, it is desirable to get a judgment based on the sum of individual convictions, on the assumption that every

committee member wants to see the right thing done. A simple majority vote, however, will not be of greatest value, since on all shop questions it is desirable to establish in advance an approximate unanimity of opinion. A two-thirds or even, if possible, a three-fourths vote is favored here as necessary to pass any decision. In this way prior agreement upon a course of action helps to assure its faithful carrying out by all.

(*n*) *Referendum.*—Some more or less organized method is needed to assure that workers are endorsing, supporting, and aware of the activities of their delegates. Nothing will be more fatal to a plan of representation than to have the workers continually repudiating the decisions of their representatives.

In any case the minutes or decisions of the meetings of the works committee should be printed or mimeographed and made available for all employees. If minutes are posted on the bulletin boards or in the company magazine, it is important that they be properly signed by the secretary and one or more others in order to indicate indorsement by both management and employee representatives. On matters of special urgency, a referendum might well occur at the discretion of a two-thirds vote of the works committee. Delegates should also be urged to report back to the workers at informal noon departmental meetings and thus to get their expression on matters still pending. In the same way they should confer with their own department foremen about pending issues.

(*o*) *Arbitration.*—There should be a defined line of appeal for all controversial matters which cannot be settled in the department or in the works committee, as the case may be. *This line of appeal should not end with any official of the company.* It should end with arbitration, which can usually be arranged by providing an arbitration committee of three; one from the management, one from the men, these two to pick a third, outside individual. Some plans specify that such an arbitrator shall be a person who holds a certain position of a public or semi-public character. Other plans provide for the appointment of an outside arbitrator by the presiding judge of the Federal District Court in which the company is located. Provision for the payment of arbitrators is usually included.

(*p*) *Discharge.*—Between the Scylla of no arbitration and the Charybdis of non-agreement on causes for discharge, certain employee representation plans are in a precarious position.

Resort to an outside arbitrator and a clearly defined list of jointly agreed causes for discharge are essential conditions of a plan which is safe and fair to both sides. Some of the plans have such a list of causes of discharge, but it is generally linked to a provision restricting the foreman from discharging for other reasons without first obtaining definite approval from the head of the personnel department. Such a list may, therefore, imply that the burden of proof is upon the foreman and consequently may encourage the employees to appeal. The better way is to provide in the plan that a number of causes for which discharge without notice will be held to be fair, will be decided on subsequently by the works committee. Even in these cases, however, the ordinary line of appeal should be available for the discharged worker who believes he is aggrieved; the review in such a case to be on the facts.

In order to give delegates every assurance against discrimination because of their activities on committees, most plans provide an appeal directly to the president of the company if a representative feels himself aggrieved. This is an excellent provision, since by virtue of its presence in writing it reduces the likelihood of such discrimination taking place.

(*q*) *Adoption.*—The plan as finally intended for operation should be submitted in writing to the employees. It should be accepted by at least a two-thirds vote of the employees, taken not less than a week after the plan is submitted for their consideration.

(*r*) *Amendment.*—Provision for amendment of the plan should not be too rigid. It is preferable to make arrangements for joint consideration and determination. A two-thirds vote of the works committee at the first meeting after an amendment has been proposed and posted on the department bulletin boards is a reasonable condition.

(*s*) *Termination.*—It should be provided that the plan is terminable only on a thirty days' or a six months' notice by a majority vote of the employees of the company or of the Board of Directors.

(*t*) *Enabling Clause.*—It should be clearly understood, once a course of action is decided upon, where the responsibility rests for its execution. Unless such responsibility is specifically delegated to some special group, it would usually devolve upon the management to carry out the decisions.

It is, therefore, desirable to insert in the plan a clause to the effect that:

> The works committee shall be concerned primarily with the shaping of policies. When the policy of the company as to any of these matters has been determined upon, its execution shall remain with the management, but the manner of that execution may at any time be a subject for the consideration of the works committee.

(*u*) *The Right to Facts.*—Provision should also be clearly made that when the works committee is asked to deliberate and decide upon a matter, *it shall have access to the facts necessary to an intelligent decision.* Unless there is such a provision, it may be difficult to persuade certain executives that they should make information available. One of the first conditions of successful employee representation is that committees shall have access to existing facts on relevant matters. Unless special joint "fact-finding" sub-committees are created, there is obvious need of an agency for procuring data and thoroughly investigating moot problems. The research division of the personnel department may well be this agency.

The Technique of Committee Action.—To assure successful operation of employee representation it is necessary that all committee action proceed in an effective way. The importance of understanding the technique of committee work, therefore, warrants laying down a few simple rules born of experience. Indeed, any executive who is to discuss committee activity should realize that there is an increasing body of experience about the correct technique of conference methods which he should study in order to assure the economical use of time in such conferences.[1]

A cardinal principle in group action is to have the size of the group adapted to the function which it is to perform. The usual function of committees is deliberation in common, with the object of deciding upon some policy or course of action to be pursued. A meeting of minds must, in order to eventuate in action, become a reasonable harmony of minds on the matter in hand. This desirable end argues for having deliberative bodies small, a dozen at the most and preferably five or six people.

[1] Of great value in this connection will be a reading of HUNT, E. E., "Conferences, Committees, Conventions; and How to Run Them;" and SHEFFIELD, A. D., "Joining in Public Discussion."

Though they be small, committees should give voice to the different interests involved. The case for joint committees on matters of any importance is a strong one, since it provides at every step for a hearing from those who have different points of view about a problem of mutual concern. These points of view must be reconciled if mutually satisfactory action is to take place.

In addition to being small and representative, committees should be informed. Members should be selected because of their interest in and special knowledge of the subject in hand; and committees should have access to the data needed as the basis for wise decision.

This need of data points to the need of leadership and oversight over committee work. The personnel department should perform this necessary supervisory labor. This supervision involves several things.

Meetings, for example, should be called often enough to keep members interested. Joint conferences should be frequent and regular.

Meetings, however, should not be called unless there is some business to transact. (This does not apply to works committees which should meet monthly and consider matters which frequently will come up at the meeting itself.)

Meetings should be planned by making out the agenda of topics in advance, and supplying members with the agenda.

Chairmen should be coached in ways of drawing out the different points of view and of shutting off discussion which wanders too far afield.

As said above, work assigned to committees should be clearly specified and a time limit set for reporting back.

Also, it should always be remembered that if a committee is made responsible for the execution of anything (operating a lunch room, running a dance or a suggestion system, etc.), the work of execution has to be done by some specified individual.

Finally, there is a tendency to put upon committees tasks which require elaborate study—such as a survey of the local cost of living, comparative wage rates, etc. If committees are to be asked to do such work, they should be provided with the time and the necessary expert assistance to do their work properly.

Values of an Employees' Association.—The discussion of employee representation was prefaced by asserting that the form of organization was secondary in importance to the spirit animat-

ing its operation. It is nevertheless true that there are better and worse forms for facilitating the expression of a right spirit. One objection which reasonably may be urged to the committee scheme as set forth in the last chapter is that it provides only a representative machinery. It does little to create a formal, organized body politic as the corporate group which is to be represented. There is simply the committee or committees, elected out of the departments or divisions of the shop. There is no organization of the whole, or all the employees of the plant. If it is borne in mind that organizations of different size are needed to perform different kinds of functions successfully, it will be realized that the function of *willing*, of generating and sustaining enthusiasm, of creating morale, is the function of a relatively large body. The employees as a whole, in their organized capacity, can perform this function better than any lesser group. They can become the will-organization of the employees, that is, the body expressing the will and desires of the workers.

Structure of the Employees' Association.—There is, in short, much to be said for encouraging the creation of an employees' association or cooperative association in organizations of a thousand or less. To this association every employee should belong, either by virtue of the fact of his employment in the plant, or automatically after he has been employed a given number of months. This association would then become the agent of the workers in all joint dealings and in all employee activities. Its constitution and by-laws, as with shop committees, would be a matter for discussion and adaption by the employees themselves, and obviously many of the specific provisions would be the same in both cases.

Several practical points of difference deserve mention, however. Shall the employees' association include foremen, office workers, and executives? In practice the most satisfactory answer to this question has been in the affirmative. It has been found that there is great value in having all head and hand workers in the organization, that it creates a spirit and a sense of working partnership which are beneficial. However, it will be wise to provide either in writing or in the unwritten understanding of the plan, that the number of foremen and other executives who can hold office at any one time is narrowly limited, or that foremen and other executives are not eligible at all for the higher

offices of the association, and that the idea of joint representation on all important committees is adhered to.

Practically, of course, the work of the employees' association will be largely done by its executive committee. This committee (corresponding in structure, function, and method of election to the shop committee of the last chapter) should be representative of departments and of management in such a way as to embody the principle of equal and joint representation. Similarly, the standing committees on matters of controversial interest should be joint. When, however, it is decided to have the association conduct various employee activities—benefit society, athletics, educational work, lunch room, etc.—the principle of equal, joint composition is less vital.

In fact, it is valuable to encourage the employees' organization to administer these activities. The desirability of many service features is to be measured not only by their intrinsic merit, but by the extent to which employees are willing to support and help administer them as parts of the employees' association. For example, as between a ball field for the workers bought and laid out by the company and one bought by the employees' association with money of its own, to which the company may have added a contribution, the preference is much in favor of the latter method.

It is true, however, of all forms of employee representation, that *the true source of their power and significance lies in the closeness to their relation to the production process.*

Difference between Shop Committees and Employees' Associations.—It may be said that an employees' association really comes to the same thing in practice as a shop committee—especially if the executive committee of the association is the active body and if actual meetings of the whole association are infrequent and confined to "occasions" rather than business meetings. In a sense this is true; the nominal differences appear greater than the practical. Yet the experience of well-run employees' associations substantiates the conclusion that there is a subtle difference in attitude and in morale which is significant and worth preserving. The existence of an employees' organization capitalizes the fact that there is some corporate body to which each worker belongs; and that organization becomes something personal and intimate when dramatized in an employees' association. This forms a psychological point of contact and relation-

ship which is genuine and helpful from the point of view of securing right attitudes and a necessary and legitimate degree of loyalty and cooperation of employees to the enterprise.

Details of Administration.—The principles laid down regarding shop committees apply with equal force here. An employees' association will not run itself successfully. It will not spontaneously develop the vitality nor the reality to make any one in the organization take it seriously. It needs leadership. It needs executive supervision and oversight. It needs a full recognition by the management that it is an educational venture. This means that not only a personnel executive should watch over the work of the association, but that in a plant where the number of activities warrant it, an executive secretary should also be employed by the association to direct its work. Preferably this secretary will be in the pay of the association, and will be selected by it. There should be an outright grant by the management to the association of a given sum annually, which should be written off to educational work. The salary of this secretary might be paid in part out of that grant. Whether or not the members of the association should pay dues is a matter for decision in each individual case, although there is much to be said in favor of them.

In conclusion, let it be said that a combination of an employees' association and committee groupings is useful for many medium-sized stores and factories. The association organizes the workers and gives them a sense of unity and cohesion. The committees represent the different functional groupings of the workers and speak for them in the discussion about methods. The one serves the corporate enterprise as a body of will; the others are bodies for thought. Both are needed; both already exist in many plants in fact, if not in name. Together they create the basic organization on which may be safely reared the more elaborate developments of a fully representative industrial structure.

Strengthening the Operation of the Plan.—Where employee representation plans have been most effective, this was largely due to a managerial program intended to remove the mystery from business by systematically discussing with the employee representatives the primary functions of the concern and the problems which confront it. It is coming to be the practice in many manufacturing companies for the chief executive of the

plant to report regularly, usually at the monthly meeting attended by all the employee representatives, concerning the condition of the business. Information is given out regarding new orders, changes in methods or equipment, the trend of manufacturing costs, and other similar matters having a somewhat direct bearing upon the likelihood of continuous employment, a matter of vital interest and concern to the employees. In many cases these matters are discussed in some detail.

Other subjects, discussed from time to time by plant officials with employee representatives have been

> . . . reasons for making time studies, method of procedure in task setting, various systems of wage payment, quality inspection slips, the company's lay-off and employment policy, the state compensation law, and what determines citizenship status. All such topics are of direct interest to employees. The function of the management representatives in these discussions is largely to inform the employees regarding company policy or governmental regulations.

Some companies even go so far as to review the financial condition of the concern, discuss the annual balance sheet or the annual company report, and in some instances, post blueprints charting the financial status of the corporation.

The kind of testimony offered in the following paragraphs is by no means untypical:

> During that time of business depression and within the space of 20 months our company was compelled to cut wages, once 20 per cent, then again 12½ per cent, and then, when the cost of living momentarily rose again, increased them 10 per cent—all without any disturbance whatsoever. Of course, the employee representatives of that period regretted their action in voting for wage decreases; of course, they would not have agreed had it not been for the decree of a destiny and of economic laws stronger than any one of us. They agreed because they understood. They had learned economic laws and facts.
>
> But can you conceive of such education in economics being conducted under any other system of industrial management? Can you picture the old-time foreman of a generation ago discussing the quantitative theory of money?[1]

[1] McCormick, Cyrus, Jr., Vice-president of Manufacturing, International Harvester Company, "Employee Representation as Affecting the Attitude of Labor and Business." Address presented at the American Management Association Kansas City Conference, Nov. 30, 1925, reprinted by American Management Association, p. 3, 1926.

It is quite important to develop uniformity in the interpretation of company policies and vitality in the conduct of joint conferences. A large public service corporation undertakes to provide a program with these ends in view. Such a program may properly contain:

1. Something about wages and working conditions and the economic considerations upon which they must be based, and this subject should be brought up on the initiative of management representatives.
2. Some operating objectives and some operating results.
3. Some phase of public relations endeavor.
4. Some of the miscellaneous instrumentalities and services which directly influence individual and group morale, such as the benefit plan, thrift plan, stock-purchase plan, accident prevention, health promotion, awards, etc.

Another effective means for developing capable management representatives is for the administrative executives to bring up for joint discussion from time to time all the important problems regarding which the attitude of employees may be significant.

Another aid is in having the supplementary meetings between foremen and the employee representatives of their respective departments as being effective solvents of ill will. Where such meetings are not held, the practice of the foreman's consulting individual employee representatives on the attitude of employees toward prospective new arrangements is encouraged.

Employee representatives frequently stand in need of "coaching" with regard to the routine procedure of the representation plan. Of representative institutions, it has been wisely said:

> In themselves they no more insure real self-government than the setting up of a works committee of employees in a factory would mean that the employees ran the factory. The distinction between representation and effective responsibility is constantly ignored.

In some concerns employee representatives are prepared for their duties by being furnished with a set of small pamphlets whose titles indicate the nature of their contents:

1. "What It Means to be an Employee Representative."
2. "How an Employee Representative Serves on a Committee."
3. "How an Employee Representative Handles a Grievance."
4. "How the Employee Representative Takes Part in Meetings of the Assembly."

5. "How the Employee Representative Can Know the Views of Those Whom He Represents."[1]

One progressive eastern manufacturing corporation took a further step in this direction by adopting the

. . . report of a special sub-committee recommending definite procedure for training new employees' representatives. The program recommended was as follows:

As soon as possible after the works committee election have the divisional representative call a division meeting of the representatives elected for the coming year, both new and old. At this meeting he should go over the important points in the works committee constitution, works committee maxims and the employees' industrial partnership plan covering particularly the following:

1. The general purpose of the works committee.
2. The type of matters which should be brought up in the works committee, and those which should be brought up to the division.
3. The attitude which representatives should have in conference committees for working out jointly with the management the right solution of a problem.
4. The relationship of the E.I.P. plan to the works committee and to the employee.
5. The relationship of the works committee representative to the employee in the department.
6. The part taken by the works committee representative in time studies and rate setting.
7. The duties of the works committee representative to the new employee, the notices which should be given on leaving a department, etc.
8. The proper method of handling grievances.
9. The distinction between works committee functions and management functions.

A few days after this meeting there should be a joint meeting of the members of the management of the division and the works committee representatives. At this meeting the principal points of the relationship of the works committee representative to the department should be fully discussed from the joint angle of the management and the works committee. In addition to the material mentioned above, the importance of having the foreman and other members of the management keep the representatives in touch with the developments that are taking place in the department, so that they may be able to answer questions and have an understanding of the underlying conditions,

[1] These pamphlets have been reprinted in Appendix III of Mr. Calder's book, "Capital's Duty to the Wage-earner," pp. 308–320.

should be emphasized and a brief survey should be given by the division manager of the major developments expected in the coming year.

If less than one-third of the representatives of the previous year have been re-elected, we recommend that the outgoing representatives be invited to attend these meetings in order that they may bring out questions from their experience.

Before either of these meetings, we recommend that the divisional representative and the division manager together go over the points that are to be brought out so as to be sure they have a common understanding.[1]

This concrete program testifies to the serious purpose and sense of obligation in the employee representatives themselves.

The practices needed to maintain the confidence of the rank and file in the plan entail careful use of publicity. Committee meetings and their results should be adequately reported. Where possible, both oral and written reports are desirable as each may supplement the other. Published minutes should bear the signed endorsement of both management and employee representatives. A complete record of cases considered by joint committees and documents pertaining thereto should be kept on file in the personnel department. This file should be accessible to all employee representatives and, for certain purposes, to other company members. All reports should appear in the company magazine.

Confidence among the rank and file should also be maintained by avoiding any possible misinterpretation of promotions of employee representatives. A safeguard against this is a more scientific promotional policy, which carefully analyzes the needs of the vacancy to be filled and scrutinizes the qualifications of all likely candidates. Promotions that cannot be fairly justified on legitimate grounds, or privileges granted employees that are not essential to the proper performance of their duties as representatives, should be sedulously avoided by the management.

Measuring Progress.—Finally, there is the need for measuring results. It has been a weakness that in many instances there has been no check-up on the achievements of employee representation. In order to determine whether its operation is adequate, means should be devised for such checking up. What are the questions which an analysis of the progress of employee representation should indicate? E. R. Burton's careful study of this subject leads to the proposal that such a periodic audit should include

[1] See Burton, E. R., *Op. cit.* p. 212.

four cardinal points: There should be a rather complete analysis and appraisal made of (1) the degree of conformity to the plan, (2) the adequacy of its prescribed procedure, (3) the attitude toward the plan, and (4) the results of the plan.

What is needed, what Mr. Burton has endeavored to supply, is a method for auditing and appraising the plan's operation. The procedure he proposes consists partly of a composite of methods now employed by many concerns. These and others which seem desirable he has combined to form a unified series of statistical data and other evidence not susceptible of quantitative treatment, all of which should be gathered periodically. When properly analyzed, such data should indicate:

1. *Degree of Conformity to the Plan.*—To what extent the plan is being properly carried out. This part of the audit consists of a series of questions, answers to which will throw light upon elections, meetings, procedure, discriminations, etc.

2. *Adequacy of Prescribed Procedure.*—Wherein this procedure is proving inadequate, cumbersome, or in any respect requiring modification.

3. *Attitude toward the Plan.*—Whether both employees and management are making full use of the plan. Under this would occur the following questions:

(*a*) Do executives consult the employees' committee regarding changes likely to affect employees before putting them into effect, or take action independently and await results?

(*b*) Do manager representatives attend meetings of joint conferences regularly and promptly?

(*c*) Do manager representatives in joint conferences enter freely into discussions as individuals or let one of their number serve as the spokesman, committing the rest to whatever opinion he expresses?

(*d*) Do management representatives who are not authorized to commit the management undertake to obtain promptly the authority of the decisions from their superiors?

(*e*) Does the management facilitate prompt and satisfactory settlement of questions by making accessible all pertinent information or by helping to obtain it from outside sources when necessary?

(*f*) Are decisions when reached promptly and effectively executed by the management?

4. *Results of Plan.*—Is the plan's operation promoting more harmonious relations between management and employees or is it becoming a cause of discontent or a possible burden?

The Benefits from Shop Committees.—Clearly the educational value for all concerned in any scheme of employee representation is one of its primary benefits. One of the major executives of the International Harvester Co. has said:

We are finding that the new association with our employees is the best thing in the world, not only for them, but for us as well. We are taking advantage of that old saying, "get acquainted with your neighbor; you might like him."[1]

It may be said specifically that representation is useful because it acquaints both sides with the facts, with the problems which confront the other side, with the point of view, purposes, and intentions of the other side. In all of this there is a distinct gain. Mr. McCormick cites, for example, the case of the interest in overhead costs aroused by conference methods:

Naturally, we all are concerning ourselves deeply with the complex subject of overhead expense. An official of the manufacturing department, specializing in this subject, prepared some figures explaining overhead and what caused it, and how it might be controlled, and these were laid before one of the works councils. The employee representatives were so interested that they asked for copies of his statement. Within a few weeks all the works councils had taken up the cry. It is remarkable enough to have a foreman interest himself in overhead sufficiently to quarrel with a plant auditor over his departmental costs; it is far more remarkable to have the workmen in that department urge the foreman to shut off its unnecessary expenses.[2]

Because all such activities are educational, they provide also a training ground for leadership and responsibility among the workers. The evidence indicates conclusively that if employees know the true facts, they will be as responsible in their decisions as could be desired. Dale Wolf, in recounting his work with a large corporation, gives an interesting (and by no means unique) illustration of how the company, when it was faced with a grave slump in demand, called in its workers and gave them a careful statement of the whole market situation. The workers were asked what their suggestions would be under the circumstances and the committee after a canvass of the plant finally decided on a temporary radical reduction of hours for all employed.[3]

[1] *Proc.*, National Association of Employment Managers, p. 139, 1919.

[2] McCormick, Cyrus, Jr., Vice-president of Manufacturing, International Harvester Company, "Employee Representation as Affecting the Attitude of Labor and Business." Address before the American Management Association Kansas City Conference, Nov. 30, 1925, reprinted by American Management Association, p. 4, New York, 1926.

[3] See Wolf, Dale, "Successful Industrial Democracy," *Industrial Management*, p. 70, July, 1919.

Responsibility is traditionally sobering; and the fear that "agitators" and hot-heads will stampede the workers into indiscreet decisions is not justified by recent experiences. Indeed if anything, the danger is the other way—that workers will assume responsibility for conditions which can really be laid at the door of inefficient management.

Moreover, the value of employee representation as a stimulus to production is widely testified to. The following citations do not come from isolated cases:

> The unexpected and indirect results of our labor policy in increasing efficiency . . . have been as profitable and satisfactory as the direct result.[1]
>
> Since the introduction of this plan, we have by request of the workers themselves reduced the working hours from 53 to 50 per week, with an increased production and increased earnings as the result . . .[2]
>
> You may ask why I say that employee representation increases the efficiency of a business. Well, I can't give you statistics, but we see the steady rise of the efficiency of each and every one of our departments.[3]

These citations tend to bear out the conclusion reached earlier in our study that employees' efficiency is determined by their interest, and that interest is secured by some approximation to self-determination in work, chance for the approval of one's fellows, chance for the conscious exercise of fellowship, chance to see some significance in one's labors. Employee representation contributes to all of these ends in one way or another; and thus appears rightly to be one essential step in procuring an efficient operating organization.

It is further true that committee action tends to relieve the management of the consideration of a certain number of relatively minor maladjustments, grievances, and complaints which should be handled promptly, at first hand, by those actually implicated. The boast of some executives that "my door is always open to anyone who wants to see me," is well meant, but it points to two

[1] Hart, Schaffner & Marx, quoted in WOLFE, A. B., "Works Committees and Joint Industrial Councils," p. 137. This plant, however, combines shop committees with collective bargaining.

[2] William Demuth & Co., quoted in WOLFE, A. B., *op. cit.*, p. 228.

[3] International Harvester Company. See *Proc.*, National Association of Employment Managers, p. 138, 1919.

real defects. First, it assumes that individual workers will have the initiative and take the risk of "coming out front to raise a row." Second, it indicates that provision has not been made for handling at the proper place and in a democratic way complaints that may arise.

Again, it is probably true that employee representation reduces strikes. It certainly tends to; and has in numerous instances averted them; but the claim, important as it is, must be advanced with caution.

There is another value in employee organization in relation to *esprit de corps*, morale, and loyalty. Each of these words connotes something which is essential in every enterprise if it is to operate harmoniously and productively. Yet each word is used today in a rather loose way to indicate a desire for the uncritical, passive, and complete submission of workers to the desires of management. If this submission *is* loyalty, it is clear that industry does *not* really want it. That kind of abject obedience is no longer desirable or possible. Committee action of all kinds emphasizes the simple truth that satisfactory relations involve *reciprocal obligations*. In its essence, *joint conference assumes and requires reciprocal responsibilities*—which is, indeed, one of the chief reasons why we stress the joint feature. Joint conference has in it the possibility of creating a consciousness in the management of *its* responsibilities—which is the necessary condition of securing true "company loyalty." An *esprit de corps* which is to have any permanency must in this day make a sincere appeal to self-respect and personal dignity. On both sides that sense of self-respect, dignity, and reciprocal obligation is fostered by employee participation in shop control.

This idea is well presented in two excellent definitions which are in point here. "Industrial good will," says a careful student of industry, "is not necessarily a virtuous will or a loving will; it is a beneficial reciprocity of wills." Company loyalty he characterizes as not "gratitude for past favors nor a sense of obligation, but an expectation of reciprocity."[1]

One of the most successful personnel managers in the country has said:

> There is a conception going the rounds of industry today that morale is something that can be bought, that it can be picked up from the shelf

[1] COMMONS, J. R., "Industrial Goodwill," p. 150.

somewhere and placed where it is desired . . . But morale is always a result of right thoughts, right actions, and wholesome environments.[1]

Robert G. Valentine put the matter plainly but truthfully when he said:

> Employers should stop talking about the loyalty of their employees until they are ready to make an equal noise talking about their loyalty to employees.

Another value of shop committees, less directly economic but destined to carry more and more weight, is the value of experience in political activity which any genuine employee representation scheme affords. It has been well said by Valentine also that

> . . . no concern can be allowed to take a worker's time for eight or nine hours a day without providing opportunity for him to practice actual methods of government.

We live in a political democracy; yet that democracy can only be made actual if its citizens have the competence and the experience in deciding public issues which come with practice. Employee representation does provide a certain amount of experience in group activity which has its value for America's political, no less than for its industrial, future.

Finally, it should be understood that the personal associations between executives and workers, built up in the joint groups, may count for much in helping the company to ride smoothly into negotiations with labor unions if such collective dealings become likely. When the time has arrived when collective bargaining is seen to be inevitable, it is a mistake to incur ill will and an alienation of personal understandings with employees by obstinate resistance. Rather is it policy to utilize to the full the cordiality which already exists, to make the transition as amicable, reasonable, and mutually satisfactory as possible.

Moreover, there is this important consideration. The activities of a union's business agent in intra-plant affairs are likely to be in proportion to the amount of outside protection which the employees find that they need. If, within the plant, agencies exist which reduce friction and minor grievances to a minimum, there is little point in the constant presence of the business agent. In the long run he has found this freedom from shop quarrels to

[1] Grieves, W. A., *Proc.*, National Association of Employment Managers, p. 84, 1919.

be as much to his advantage as to the company's, since there are many extra-plant affairs which can better receive his attention.

Employers' Objections.—The objections to employee representation which were current before the war have lost much of their force in the light of recent experience. The objection, for example, that they tend to reduce output is not substantiated by the facts. The objection that they force up wages is certainly not as absolutely true as was supposed.

Consideration of the wage rates, of course, occupies an important, but by no means a preponderant, place in committee discussions. Far from evidencing a tendency to demand unreasonable increases, all the facts show a disposition on the workers' part to act responsibly *once the financial condition of the company is fully appreciated.*

The objection is also advanced that the employees who are selected by their fellows are irresponsible—are the "loud-talkers" and "agitators." Here again, experience does not bear out the contention. Even where there is a tendency not to select just the right type of delegate at first, employees find after one election that in any battle of wits, they must choose their best talent to represent them. On this point the Harvester Company testifies to

> . . . what a fine type of men the employees have elected as their representatives . . . the men were of an average age of 37 years, three-quarters of the representatives married, the average employment with the company is over 7 years, and a large number of them own their own home or stock in the company.[1]

Similar in character is the objection that employees will not assume responsibility. The evidence already cited would seem to be sufficient proof that this generalization is slightly overdrawn; and that where it is true, the management has not properly reciprocated by assuming its own responsibilities. Macaulay has pertinently said:

> Many politicians are in the habit of laying it down as a self-evident proposition that no people ought to be free till they are fit to use their freedom. The maxim is worthy of the fool in the story, who resolved not to go into the water till he had learned to swim. If men are to wait for liberty till they become wise and good in slavery, they may indeed wait forever.[2]

[1] McCormick, Cyrus, Jr., *Proc.*, National Association of Employment Managers, p. 138, 1919.

[2] Lord Macaulay, "Essay on Milton."

The objection that the committee interferes with the management's prerogative to run every detail of the business the way it wants to is a valid one. We have no desire to obscure this fact. The manager who holds that "this is my business, to run as I see fit," had best approach employee representation with caution. When, after experiencing the workers' decreasing interest in "my business," such a manager concludes that "something must be done" to build up morale, he will do well to consider what some type of shop committee plan can do to change his employees' attitude.

The argument that shop committees are subversive of discipline has certainly not been borne out in practice. The following evidence on this point is interesting:

> Do not let anyone argue that employee representation is subversive of shop discipline. I have seen times when the council proved to the factory management that a man had been unfairly dismissed and, because it was the fair thing to do, secured his reinstatement. I have seen times when an employee representative was dismissed for cause, and, because of the justice of the discipline, his colleagues in the council approved. In none of these cases was shop discipline injured, but rather in every such case it was helped. Workmen do not know how or want to run a shop—but they are eminently able to know whether or not the superintendent knows how. When they respect him, the council becomes a help; when they fear or scorn him, the absence of a council will only make his failure less apparent, not less real.[1]

Finally, there is the objection that "all this committee business means too much talk and takes too much time." Committee action does take talk and time.

All education takes talk and in this connection the following paragraph from MILL's "Representative Government" is too pertinent to exclude:

> Representative assemblies are often taunted by their enemies with being places of mere talk . . . There has seldom been more misplaced derision. I know not how a representative assembly can more usefully employ itself than in talk, when the subject to talk is the great public interests of the country, and every sentence of it represents the

[1] MCCORMICK, CYRUS, JR., Vice-president of Manufacturing, International Harvester Company, "Employee Representation as Affecting the Attitude of Labor and Business." Address presented at the American Management Association Kansas City Conference, Nov. 30, 1925; reprinted by the American Management Association, p. 4, New York, 1926.

opinion either of some important body of persons or of an individual in whom some such body have reposed their confidence. . . . Such 'talking' would never be looked upon with disparagement if it were not allowed to stop 'doing'; which it never would, if assemblies knew and acknowledged that talking and discussion are their proper business, while *doing*, as the result of discussion, is the task not of a miscellaneous body, but of individuals specially trained to it; that the fit office of an assembly is to see that those individuals are honestly and intelligently chosen, and to interfere no further with them, except by unlimited latitude of suggestion and criticism, and by applying or withholding the final seal of national assent.

time and executive supervision. There are, of course, degrees of efficiency in committee work, but at best, it does involve some real cost of time and money. The question is: Is it *more* expensive than the alternatives of non-interest, indifference, and no *esprit de corps?* To this the answer which experience is giving is a fairly decisive negative, and that negative is likely to become even clearer, as soon as managers plan educational and administrative work on a basis of reasonably long-time units. The cry for quick results in a matter involving the leveling-up of the intelligence or competency of a large group of people is born of a failure to face the facts. Corporate administration makes headway in the direction of an effective and smooth-running productive organism only as every individual involved is functioning fully and happily. To bring this about is not the work of a day or even a year. An English statesman whose life was filled with the toilsome effort of leading representative bodies observed, "If you would love mankind, you must not expect too much from them."

Moreover, there is the further need of time to remove natural employee suspicion. There is probably much force in the opinion of Henry S. Dennison that in many companies

> . . . there will be an underlying suspicion for one full generation after employees, for the most part, have been square and wise. The tales today's workmen heard their fathers tell at the supper table set their subconscious attitude.

There are reasonably certain signs that the use of employee representation will prove a permanent asset for sound shop organization. If only at every step managers will hold before themselves the educational motive and the principle of functional

organization, progress will be assured. The shop committee has an indispensable function. It opens up channels of direct, personal communication between managers and managed. A personal, human contact is established. A vivid sense of participation in a common and socially valuable enterprise is realized. An atmosphere of good will and workmanship may be created which is the atmosphere needed to assure true efficiency. There is valuable training in common action and decentralized responsibility.

In short, employee representation promises to become a permanent feature of industrial organization because *it is structurally a logical and essential element in the plan of organization which industry is slowly developing—a plan in which in each administrative area and at each administrative level the process of executive direction and control is tempered by representaiive deliberation and consent.*

Just because employee representation is functionally justified, it is also functionally limited. Other areas and other functions than those of one company have to be considered. Any farseeing view of industrial organization must make provision for other types of representative conference which can reckon into these longer relationships. Those are discussed in subsequent chapters.

Selected References

See references at end of Chap. XXIX.

CHAPTER XXIX

LIMITATIONS UPON EMPLOYEE REPRESENTATION

In the long run it will be a real handicap to the growth of employee representation if managers in large numbers think of it as a substitute for collective agreements with labor unions. The essence of the view here is that, properly regarded, these two are complementary. It is as reasonable to pronounce that city government is a substitute for state government or a town meeting for a city form, as to say that employee representation affords a substitute for union dealings. Rather the former has a function already explained, which is necessary, important, conducive to mutual understanding and smooth operation. As an administrative area the corporation has its own problems, many of which can best be settled within its own jurisdiction. They will tend to be settled with satisfaction to all through the deliberations of the employees' association; but in addition there are problems affecting the workers *which are not confined to the one company in their influence and effect*, and for the adequate handling of these problems a larger administrative area of control has been found increasingly necessary.

Employee representation thus far in this country has been employer-initiated. If at any time the directors of any company felt that they no longer cared to attend to or bother with the workers' thoughts, demands, or desires, under certain restrictions stated in the constitutions of their plan, they could withdraw it altogether. This would usually be bad business, a display of serious managerial incompetence. Taking account of the workers' point of view is an important management duty at all times. Nevertheless, cases are not unknown where a management has changed its policy from one of cordial dealings to one of arbitrary exercise of authority. If the workers do not have an organization which is self-initiated, self-perpetuating, and in receipt of outside support and counsel, there is at hand no group

capable of preventing the employer from trying to do away with the agency of joint conference and capable of protecting the employees from such ill-advised and arbitrary action.

"The employer's good will," it has been well said, "is no sound basis for collective action." In one large plant, for example, where a shop committee had worked satisfactorily and the management was pursuing a progressive labor policy, the workers began to seek membership in labor unions as soon as a son of the head of the company appeared in the business. The workers said definitely that they feared that the son would soon change the management policy unless there was some wholly self-sufficient employees' organization to withstand any reversion to a less liberal adminstration.

Again, the shop organization is not a body which can deal with the employer on a basis of equal bargaining power. The importance of such a sense of equal competence we have already dwelt upon. It requires no elaborate argument to show that the modern corporation has at all times advantages in financial resources, executive leadership, association with other employers in the industry, and permanency of life through a waiting period, all of which the employees of that corporation *do not by themselves possess.*

A further serious drawback is the fact that leadership in the workers' organization is too likely not to prove a match for the ability of the executives against which it is pitted. So accustomed is the management to "playing the game" that it is hard for it to realize that there is a point beyond which it does no good to "play the game" on the workers. For example, it may be possible to argue a shop committee into acceptance of a wage scale which is lower than the management ought to pay in order to get the kind of work it wants; but the manager who is always "playing the game" tends to get so interested in "putting it over" on the committee, that he fails to realize that he is in such a case also putting it over on himself.

Hence, to prevent management from overreaching itself as well as to assure adequate protection to the workers, there is need for a leadership among the employees which can meet the management competently on its own ground. Such leadership, in order to be upon a parity with the executive leadership it may confront, requires knowledge of the shop and of the industry, knowledge of local and general labor conditions, ability to present and argue a

case effectively, ability to address the management with no fear of possible prejudice to one's job.

Only rarely will such a combination of requirements exist together in the employee representatives. The case for the use of the business agent of the union rests in part upon this patent fact: *that the person who is to possess the combination of talents needed to meet business managers effectively on their own ground must be specially trained for the job and must be in a position where he is not directly dependent upon the management for his support.*

It is recognized and urged that there are many important matters which may be much better handled wholly inside the shop directly with the workers or their delegates rather than with anyone outside. But if one admits also the desirability of equal bargaining power, he must be prepared to accept *those attendant conditions which really create equality.* A dispassionate examination seems to indicate that the employment of an outside spokesman for the workers in relation to matters like wages and hours which help to determine the level of an industry's labor standards is an essential element in bringing an approximate equality of bargaining power into being.

A final shortcoming of shop organizations is that they are not in touch with other groups and forces in the industry which are helping to determine the terms of employment under which the employees in any one plant can secure work. The shop group cannot act most wisely until it can act in the light of knowledge about the raw materials, the state of demand for the product, for labor, etc. Conceivably, much of this knowledge could be assembled by the workers in each shop, but to secure it would require a degree of advisory conference with widely acquainted experts which would in the end come to much the same thing as now exists in the organization and activity of the international union in that industry.

All of these objections might be thought to be academic and to imply a sense of the deficiencies in employee representation which in fact the workers themselves are not today seriously concerned about. There are two things to be said of this: first, that in some one company or another some of these objections have already been raised and are being worked at; second, that the organized workers of the country have for some time raised their voice in criticism of this movement despite the fact that it involves a beginning of organization and group consciousness on

the part of workers in plants and industries where no labor organization has thus far functioned successfully.

The question of a paid employee agent who would be comparable in knowledge and skill to a union business agent has been met in a number of companies by the employees having a secretary to take charge of their affairs.[1] The pay of this official is as yet not fully met by the employees; but the idea of a special agent is a real advance.

In a number of companies having a nation-wide distribution of plants, there is an annual conference of managers and men from all plants. This is done to increase familiarity with company problems and to standardize labor policies and methods. There is a persistent call in one locality where several companies in one industry operate and all have shop committees to have an inter-company shop council plan to discuss all local labor problems affecting the competitive labor situation. There are other companies with several scattered plants where the employees are seeking inter-plant conferences, and the managers are resisting this request. Already, in short, the inevitable necessity of wider associations than those within one plant is being realized.

As to organized labor, its objections and point of view on employee representation have recently been stated by Mr. William Green, the president of the American Federation of Labor as follows:

> It seems to me pretty evident that employee representation plans are consciously or unconsciously substitutes for trade unions and are intended to prevent the development of the organized labor movement as developed by the workers themselves. Just because the movement is not a development growing out of the experiences of those most vitally concerned, it does not seem to me that it possibly can be a permanent development but must inevitably give way to the trade union movement.
>
> There is nothing that can be accomplished by company unions that cannot be accomplished through the trade union. Trade unions have not had the opportunity to develop their full constructive service because they have been frequently opposed by employers. If employers instead of fighting the trade unions will follow a policy of cooperating with them, the constructive results will be infinite . . .
>
> The number of wage earners concerned and affected by company unions is confined to some transportation lines, some public utilities companies, and in some private manufacturing industries. It is neces-

[1] BURTON, E. R., "Employee Representation," p. 127.

sary for us to know how these company unions are operating so we may plan the best way of dealing with them. We know that company unions deny their members the advantages of national organization and the benefit of representative officials of that training which develops independent experts. The union has its origin in the needs and aspiration of workers and is necessary to enable them to render their full function service. It became necessary when management was divorced from the production side of industry—when machines replaced hand production. Some managements and employers resent unions as an invasion of the authority of management. From such has come support of employee representation plans or company unions with the hope of crushing unions by this method, a method which is more insidious than the old union-smashing tactics. Labor needs to study ways of meeting this problem to determine whether it cannot find more effective methods. If the representatives of the union control any employee representation plan offered by employers, it ceases to be a menace.[1]

Employee Representation and Democracy.—There has been a good deal of loose application of the phrase "industrial democracy" in connection with the development of employee representation. Anyone, of course, is entitled to use such terms as he will; but speaking with the background of political democracy in view, it would seem to be reasonable to object that plans of this sort are only one structural segment in what may, or may not, ultimately become something which may be called democracy in industry. Just as political democracy is not thought of as the method or methods of organizing any one locality, just so it is inadequate to think of industrial democracy in terms of one enterprise.

The danger of wrong thinking here has its practical aspects, since the good of employee representation may well become the enemy of the good in having also a wide basis of joint dealing. There is real danger that companies which have their thinking too rigidly fixed in terms of their own plan will be opposed when they might well take their place in the bigger movement of broader affiliations.

If industrial democracy is a matter of one company, it will stand impotent before a thousand exigencies. The employer will plead his helplessness; the facts will show his ineffectuality. Self-government in industry is fundamentally a matter of wider

[1] Quoted in BURTON, E. R., "Employee Representation," pp. 65–66. The second quotation is from the 1925 annual report of the A. F. of L.

scope and content. Democracy in industry means nothing if it does not mean an informed control over the economic organizations of a country (and eventually internationally as well) under the direction of the immediately affected groups and in the interest of consumers as well as producers.

Employee representation is not, of course, to be criticized for not doing something which by nature it cannot do. It is rather that attention is called to the limit to its function which is rightfully imposed by its restricted make-up, for that limit is in actual practice frequently reached.

What can a joint shop committee do, for example, to offset the results of the unfair competition of another company which misbrands or adulterates its product? What can be done to prevent a corner in raw materials, or to remedy an absence of cost-keeping records by competitors which results in their underbidding a fair price? These are questions vital to the welfare of the management and the employees of any corporation; yet they are not met without industry-wide action. The factory committee is competent to deal with factory problems. Only a representative body from the entire industry is ultimately competent to control certain other vital factors.

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CHAPTER XXX

THE BUSINESS VALUE OF THE COLLECTIVE AGREEMENT

From the business standpoint the advisability of collective bargaining with organized labor is seriously questioned by many managers. Probably upon no other question of executive labor policy do wider extremes of belief exist. Employers who for years have been accustomed to collective negotiations are as firm in their view that they would not return to the old conditions, as are many other employers that this method of negotiation should be opposed to the limit. In each case opinions are held with such an earnestness of conviction and depth of emotion that an examination of the question on its merits becomes exceedingly difficult.

Moreover, so varied are the types of labor unions, so varied their constitutions, their policies, and the agreements they have made, that generalizations in one direction may easily be refuted by citing specific instances of a wholly contrary experience. Indeed every point in an argument either for or against the collective agreement could be countered by one or more illustrations to show that the point was not well taken. In the face of such a wealth of contradictory testimony, the effort must be to go below the surface and analyze the more permanently true facts and tendencies in the relations of employers and labor unions. Of course, the actual extension of collective bargaining has not taken place as a result of the employer's calculating by a cool logic its advantages to him. It is equally true that this type of agreement could not have extended as it has, if it had not certain definite business and social advantages.

The effort should therefore be, in any thorough analysis of all the elements of the technique of personnel administration, to see what factors of business value the collective agreement may already have shown, how its business value may be increased, and what the limits upon its business value are. For the collective agreement as a type of joint relationship of employer and employee

deserves as careful scrutiny from the point of view of a scientific managerial technique as employee representation or any other proposal. Careful analysis of all existing experiments is the necessary first step toward the selection of a soundly constructive practice.

This is especially true today in relation to labor unions, for the managing world faces a condition and not a theory in the extent and activity of labor organizations. Unions have already achieved a place in industrial life which entitles them at the least to an intelligent understanding by employers who have not thus far dealt with them. There are in fact not quite four million organized workers in this country. What the immediate future holds for the rapid growth of unionism may be problematical; but the forces making for its extension in some form or other show no signs of disappearing.

The personnel executive, moreover, must be prepared to accommodate himself and his policies to the subtle forces and influences usually connoted in the phrase "the temper of the times." To know what working people are thinking and feeling is a definite duty, as the workers in every plant are exposed in a greater or less degree to the ideas which are current in the working-class world. Employers have to deal with contemporary psychology, current moods, and sentiments; not with those which were current when they were in the shop or in college.

The duty of being informed is, after all, a comparatively passive one. The manager has also to act on the basis of that knowledge, act favorably or not toward collective bargaining, if and when any considerable fraction of his employees become unionized.

Definition.—"Collective bargaining" as used in this volume (following the common usage of economic students) refers to dealings regarding the terms and conditions of employment under written or oral agreements with labor organizations in which are banded together the workers of a trade or industry in a given geographical area. A collective agreement thus may be made by a labor man with one plant, with one corporation covering a number of its plants, with an employers' association of a city, district, or state, or with a national trade association or employers' group.

The phrase "collective bargaining" however, has recently been applied to a type of transaction which differs in a fundamental respect from the above definition. Some employers now speak

of negotiations with their own employees exclusively through the medium of shop committees, factory councils, company unions, etc., as collective bargaining. Of course, any use of a phrase is warranted if definition is agreed upon in advance; but to apply a term which has been used for decades to connote dealings with an inclusive body of craft or industrial workers having outside affiliations to dealings which are completely confined to one plant or company is not only confusing but seems likely to lead to a deception both of workers and of managers as to the basic difference between the two types of negotiation. Employers may honestly believe that there is no inherent and fundamental difference between negotiations which are limited to the employees of one shop and those carried on with unions; but until this is clearly established, to apply the phrase "collective bargaining" to both types of transaction is to confuse the issues.

Various Methods of Negotiation.—The shortcomings of individual bargaining and of employee representation, as complete and ultimate methods of negotiating terms of employment and affording adequate conference machinery, have already been set forth. Neither can offer all that is needed, although both provide something that is needed, in supplying a functionally and administratively rounded structure of control. The same may be said of the technique of the collective agreement with labor unions. It is now essential to see just what are the business values as well as the limitations of this type of negotiations. These will be stated briefly and categorically, and then discussed. *From the point of view of good industrial management,* the business values of collective bargaining are:

1. The value of equalizing bargaining power.
2. The value of assuring adequate self-protection to the employees' interests.
3. The value of conducting negotiative dealings with one responsible organization.
4. The value of protecting employers from their natural tendency to economize in the easiest but not necessarily best way.
5. The value of uniformity in the terms of employment over adjacent competitive areas.
6. The value of defined, classified, and standardized craft lines.
7. The value of creating conditions under which employee interest in production and in incentive payment may safely manifest itself.

1. The Value of Equalizing Bargaining Power.—In the previous chapter it has been shown why equal status in negotia-

tion yields the best results from the managerial point of view. It is desirable, however, to make clear that it is appreciated that the bargaining attitude is not the final nor the only attitude between managers and men. The present writers are anxious to see a point reached beyond the bargaining and higgling stage where there is common concern for the best way in which all can contribute to the common corporate enterprise. But a realistic view requires the understanding of the fact that *the attitude which is beyond bargaining and truly cooperative can come into being only when there is confidence on all sides that basic rights and interests are adequately secure so that attention can be turned safely to corporate projects of a constructive character.* Hence, when the benefits to be derived from fostering corporate unity by attempting to integrate conflicting interests are urged, it is meant and assumed that equal power has been previously established among the affected groups. From this point of view collective bargaining becomes one of the most important prior conditions of building up a productive morale in industry. The approximation of equality which it achieves between managers and men is apparently near enough to supply the basis for further constructive activities between them, of which more will be said later.

2. The Value of Self-Protection.—From the management point of view, to assure that people are able to take care of themselves and of their interests is not to abdicate responsibility for good management, but to create conditions in which a sense of self-respect and self-choice of loyalties and enthusiasms becomes possible. Since such a sense of self-respect and self-choice among the personnel is vital to the sound morale of a corporate enterprise, the conditions that induce it are also vital. Among these, collective agreements may be shown to hold an important place by bringing into action the autonomous manual workers' group which will represent their interests.

> Human beings are only secure from evil at the hands of others, in proportion as they have the power of being, and are, self-*protecting;* and they only achieve a high degree of success . . . in proportion as they are self-*dependent,* relying on what they themselves can do, either separately or in concert, rather than on what others do for them.[1]

The writer of these sentences goes on to say that many . . . have a great dislike to it [the above proposition] as a political

[1] MILL, J. S., "Considerations on Representative Government," Chap. III.

doctrine, and are fond of holding it up to obloquy as a doctrine of universal selfishness.

Yet as Mill points out, it is not so much that one class or group now knowingly or deliberately ignores or trespasses upon the rights of others;

> . . . it suffices that, in the absence of its natural defenders, the interest of the excluded is always in danger of being overlooked; and, when looked at, is seen with very different eyes from those of the persons whom it directly concerns.

Moreover, to construe this argument for the organization and protection of the working group's self-interests as an encouragement of working-class selfishness would be wholly to misunderstand the present economic situation. Under modern conditions the employee's first solicitude is inevitably and properly one for his own survival. Until he has assurance of the initial needs of life for himself and his family it is humanly impossible to enlist his interest in wider purposes. Indeed, the attitude in which work is done most efficiently is one where there is reasonable freedom from worry about making both ends meet. Far from characterizing anxiety for self-protection and efforts for an assured basis of livelihood as promptings of selfishness, wise managers are seeking in one way or another to establish an adequate basis of livelihood for their employees.

Also, it may be urged fairly that in his desire to do exactly the same thing, namely, protect his interests, in many industries the employer has organized into trade associations with other employers in his industry; and he seeks in such combined action to forward those interests in every legal way.

One objection of employers to the implications of collective dealing is that it stresses the *conflict* as against the *cooperative* aims of the respective groups. Employers are likely to feel that the labor union philosophy dwells upon the divergent interests of owners and workers rather than upon those that are common. It is true that unions usually are more willing to admit the existence of a conflict of interests than employers are; but it is further true that some few unions today are also emphasizing what truly may be called the creative values in conflict.

The point here is that conflict of itself is not bad or harmful. It depends upon the use which is made of it. When and if recognition of the existence of a conflict of interests or purposes

leads to a definite study and planning to arrive at a new common basis in which the conflict disappears, a creative use has been made of the situation; and out of conflict a newly invented basis agreeable to all has been hit upon and applied.[1]

In short, it is true that it must be a primary concern of any group to see that watch is being kept over the essential conditions of its survival. An inviolable part of any group's generous and outreaching purposes is the protection of its own integrity. This is the first point at which self-interest and social interest usually intersect. It is only when any group's purposes are wholly selfish, anti-social, and out of date that its primary self-interest may be irreconcilable with the social interest.

It is fundamentally true that a group's integrity in the long run may be assured only by its own efforts. It is the first, if not inevitably the best, judge of the essential conditions of its survival. It can and must learn how to succeed only by its own actual motor and mental experimentation. Because this is true, there has arisen the political principle, which is now being slowly but surely read into the theory of sound industrial government, that: *In carrying on an enterprise every participating group which is affected by decisions concerning the operating of the enterprise should be a party to the making of those decisions.*

In pursuance of a discreet but inevitable application of this principle to industrial administration, the use of collective bargaining under ordinary conditions deserves careful consideration as a practical, educational, and administratively logical method of conference and joint action.

Selected References

See references at end of next chapter.

[1] See FOLLETT, M. P., "Creative Experience," for a more adequate elaboration of this point of view; also chapters by her in "Scientific Foundations of Business," edited by H. C. METCALF.

CHAPTER XXXI

THE BUSINESS VALUE OF THE COLLECTIVE AGREEMENT

(Continued)

3. The Value of Unified Negotiation.—Under collective bargaining there is, of course, one agreement, one period of negotiation annually or biennially, instead of constant likelihood of demands, one party of the second part, instead of as many parties as there are employees.

The business values of this consolidated bargaining are not to be ignored. It means that individual selection takes place on a basis of publicly known terms and conditions of employment. It means that these terms instead of representing what the management thinks the majority of workers will accept, embody what their recognized spokesmen have agreed to. It enables the attention of all, once the terms are agreed upon, to be fastened on other matters.

Moreover, the task of fulfilling the workers' side of the agreement devolves upon a national organization whose power and prestige depend increasingly upon its ability to honor the agreements which it makes. That this is a practical consideration will be realized if the alternative situation is imagined. If, for example, a company were to make through its shop committee a definite agreement for a term of months on a wage-and-hour scale, and if the workers were to break the agreement and strike, there would be no outside influence to help effect a resumption of work. Such a situation in a union shop is met by definite and usually effective, discipline from the national union headquarters, in terms of charter suspension and non-payment of strike benefits.

Two objections, however, will be properly raised in this connection. First, that when there are several craft unions in a plant, it is sometimes necessary to enter into several agreements; and second, that even with the disciplinary activities of the

national union, agreements are sometimes violated by the workers.

It is, of course, undoubtedly true that where members of several organized crafts work in one shop, they may not have reached a point of sufficient federation to act together in the making of a single joint agreement. Every day, however, shows the federating principle more strongly at work and we see such strong groups as the building, printing, railroad, needle, textile, shipbuilding, leather-working, mining, and metal trades—all working in federation in the drawing of joint agreements.

Indeed, the objection that there is a variety of crafts (except where they create the delay and irritation of jurisdictional disputes) is not always a sincere objection. For the employer has frequently found that he prefers to have different agreements with different craft bodies, which terminate at different times and thus prevent the likelihood of a simultaneous walk-out. As to jurisdictional disputes, they are without question a source of real and justified annoyance to the employer. He finds himself helpless before a controversy which he is powerless to settle, and the merits of which are often of no special interest to him. He is confronted with a condition out of which the unions themselves hope to grow as soon as possible, since it hurts them no less than him. Meanwhile, there seems to be no alternative but patient tolerance plus an effort to bring the disputing crafts together *before* methods or materials of work are adopted which may be potential sources of inter-craft controversy.[1] Indeed, it may be safely affirmed that objection to one agreement with a federation of crafts is not usually raised by the crafts involved. The employer who wants to include all negotiations in one agreement will increasingly find the unions ready to meet him on this point.

A further value in having a single agreement—or a single agreement for all workers in a given craft or a branch of a trade—is that it fixes labor costs at a definite figure during the life of the agreement.

The Violation of Collective Agreements.—It is, of course, true that unions sometimes break their agreements. It is important

[1] There exists now a National Board of Jurisdictional Awards in the building industry, consisting of eight members, three representing the Building Trades Department of the American Federation of Labor, and five representing the several employers' groups.

to consider this difficulty as thoroughly as space will permit, since much opposition to unionism focuses at this point. The problem has two aspects: First, the aspect of the breaking of agreements—why are they broken? Second, the aspect of the accountability of the unions for keeping agreements—how can accountability be assured with due consideration for all?

There are three typical causes of the violation of joint agreements by unions:

(*a*) *The Sympathetic Strike.*—The sympathetic strike to aid the cause of fellow workers in another craft or locality will always seem to the employer to be a dubious, if not indefensible, practice. Indeed, union leaders themselves increasingly share this view, since the tendency is strongly in the direction of taking away from local bodies the power of calling a strike, and vesting it in the executive committee of the national union; or of requiring a secret ballot referendum of the membership of the union. Statistical study of the causes of strikes shows that these changes are having a decided effect—that there are fewer and fewer strikes of sympathetic origin. This objection, in short, has much less force than it had a few years ago.

It is useful to understand, however, why the sympathetic strike is used. It rests upon a premise which the employer cannot ignore, since much working-class sentiment and policy are based upon it—the premise of the solidarity of all manual workers' interests. The cause of one worker, in this view, is the cause of all; all rise together and advance only as fast as the rear guard advances. This belief has its negative and its positive manifestations; that is, it is used for the purposes of defence and offense. The sympathetic strike, as a defensive weapon, is used by workers to assist their fellows in preserving or improving their status as wage earners. It seems reasonably clear that its use for this purpose will decrease as soon as the workers find that with stronger organizations they can utilize better ways of bargaining.

(*b*) *The Unforeseen Contingency.*—One of the most frequent causes of broken agreements has been the entrance, after the signing, of some unforeseen contingency from which the agreement appears to offer no relief. Examples of this are rapid increases in living costs, new machinery or new processes with the problem of re-setting rates, providing for displaced workers, and changes in the state of demand for the product. The difficulty

in the majority of such cases is usually that *the agreement has not provided adequately for dealing jointly with all special cases.*

In the remainder of cases it is probably true that one side or the other had made the appearance of new conditions the occasion for increasing the strength of its defenses. If, for example, after an agreement is made, the workers find that the demand for the product is peculiarly brisk, they may decide to take advantage of the situation to press for higher wages. There is, from the employer's point of view, little justification for such tactics; and in the stronger unions little support probably could be rallied now to such practices among the workers themselves. No understanding of union tactics is possible, if one does not bear in mind that the first concern of the working-class organization is to bring itself to a point of strength where it is able to do its defensive work adequately. This is not said by way of palliation of any union tactics; it is said only by way of explanation. The labor union, one has always to remember, is historically *a defensive body.* Its original reason for being is to protect the minimum standards of living and working which the workers have already attained.

In short, the best remedy for a situation where agreements are broken because of some unforeseen contingency, is to see to it that in the future the agreement is sufficiently explicit and flexible to cope with all possible developments. It will, therefore, be advisable to consider presently what the form and content of the collective bargain should be.

(*c*) *Prior Breach of Agreement by the Employer.*—Instances are at hand where workers feel that the collective agreement is already broken by some failure of the employer to fulfill his obligations; and this then becomes their excuse for breaking it, or for presenting new demands. Obviously, the employer's dereliction does not excuse the workers. It only shows that where a breach of agreement is claimed against a union by the employer, it is important not to jump too hastily to the conclusion that the workers alone are in the wrong. It would be extraordinary, of course, if with the thousands of agreements which are entered into yearly, there were not some in which the breach was on the management side. In other words, it is necessary to judge each case on its own merits.

But it may be said, a collective agreement is a contract; and there should be some means of redress, some accountability of the

union today for its actions in breach of agreement. If the union chooses to indulge in arbitrary methods of defense, it should realize how truly expensive and hazardous they are. This view is so frequently urged as to require careful scrutiny.

The first point to be clearly established is the extent to which the collective agreement is a contract. An opinion on this question, is extensively quoted here not because it argues any the less for having unions feel accountable and responsible for living up to agreements, but rather to make clear the legal status of the union as compared to that of the corporation.

The difference between a labor union and a business organization and between a trade agreement and an ordinary contract is well expressed in a recent decision of the Supreme Court of Kentucky: "A labor union, as such, engages in no business enterprise. It has not the power, and does not undertake, to supply employers with workmen. It does not, and cannot, bind its members to a service for a definite, or any period of time, or even to accept the wages and regulations which it might have induced an employer to adopt in the conduct of his business. Its function is to induce employers to establish usages in respect to wages and working conditions which are fair, reasonable, and humane, leaving to its members each to determine for himself whether or not and for what length of time he will contract with reference to such usages. . . . It [the trade agreement] is just what it, on its face, purports to be and nothing more. It is merely a memorandum of the rates of pay and regulations governing, for the period designated, enginemen employed on the Chattanooga division of the company's railway. Having been signed by the appellee, it is evidence of its intention, in the conduct of its business with enginemen on said division, to be governed by the wages and rules, and for the time therein stipulated. Enginemen in, or entering, its service during the time limit contract with reference to it. There is on its face no consideration for its execution. It is therefore not a contract. It is not an offer, for none of its terms can be construed as a proposal. It comes squarely within the definition of usage as defined in Byrd *v.* Beall, 150 Ala. 122, 43 So. 749. There the court, in defining usage, said "usage" refers to "an established method of dealing, adopted in a particular place, or by those engaged in a particular vocation or trade, which acquires legal force, because people make contracts with reference to it."

The so-called "contract" which a trade union makes with an employer or an employers' association is merely a "gentlemen's agreement," a mutual understanding, not enforceable against anybody. It is an understanding that, when the real labor contract is made between the individual employer and the individual employee, it shall be made

according to the terms previously agreed upon. But there is no legal penalty if the individual contract is made differently. To enforce the collective contract would be to deny the individual's liberty to make his own contract.[1]

In some cases the placing of a bond by both sides as a guarantee of fulfillment of the agreement has been used with a measure of success; but the usual counter-proposal of employers has been to incorporate the unions, in order that they may thus be made subject to suit if "breach of contract" or any illegal act occurs. Indeed, some employers have claimed that if the unions were only "responsible organizations," they would be willing to deal with them. This sounds eminently reasonable. Logically and abstractly, there would seem to be no serious objection to incorporation of unions; but one is not dealing in abstractions nor in matters where legal consistency is the only criterion. When the present strength of trade unions and their primary purpose are examined, difficulties begin to appear.

Unions exist to protect by group action the fundamental interests of employees; to assure in the first instance earnings and conditions of work sufficiently adequate to preserve a healthy and happy standard of living. Under present circumstances organized workers receive amounts too close to the minimum of subsistence to make it possible for them to lose money invested in their labor organization without such loss jeopardizing their very livelihood. *Property can stand loss by financial penalty legally imposed; life at or near the margin of subsistence cannot.*

Moreover, until the law specifically concedes and recognizes the right to organize in protection of one's livelihood as being at least equal to the right to protect property, the incorporation of unions would mean the legal recognition of bodies which must resort to methods which are now held illegal in order to carry out their fundamental purposes. It is at this moment by no means clear what the legal position of the trade union is. Court decisions have in recent years construed trade union activity as being a conspiracy in restraint of trade, as an effort to deprive employers of property without due process of law, and as an impairment of the right of freedom of contract. In other words, to incorporate unions would make it easier than it now

[1] COMMONS and ANDREWS, "Principles of Labor Legislation," pp. 117–118.

is to penalize those bodies for acts which are or might be declared "illegal," however humanly justifiable they may be.

The strike, clumsy and costly a weapon as it may be, is the organized workers' most powerful instrument of self-protection. Yet, if in striking unions were held to be conspiracies in restraint of trade, agents depriving employers of property without due process of law, or agents causing workers to break individual contracts, they could be sued to the limit, and their effectiveness and even existence thereby nullified. It should be axiomatic that if a body becomes legal, as the union would if incorporated, the only course which it can pursue to fulfill its legally defined purpose would be legal also. This is *not* saying that all its acts are therefore legal. Legality, however, would have to be interpreted, not as it so often is today in terms of abstract concepts of "property rights," "freedom of contract," "equality," etc., but in terms of the *raison d'être* of the organization and of the *human* context and consequences of the particular acts in question.

The means are already at hand to prosecute union leaders for criminal acts. Damage suits may be used to meet definite offenses. Indeed, so formidable might their use become that Commons and Andrews are led to say:

> The menace of the damage suit is best brought out in the contrast between the position of the members of labor unions and that of stockholders in corporations. It is evident that labor unions are very much looser organizations than are corporations. Unions must entrust their officers with great power; the rank and file of the members know little about what the officers are doing. Even when members disapprove of the actions of the officers, they can ill afford to get out of the union, as they would lose their insurance benefits and in many industries would find it difficult to get a job. These are reasons why the members of labor unions should not be held to the same accountability for acts done in their behalf as are stockholders in corporations; but in the United States the members of labor unions have the greater liability. For a tort committed in behalf of a corporation, the stockholders can be held only to the extent of their stock subscription, or double the amount, under certain laws regulating banks. The members of labor unions are responsible without limit for tortious acts done in their behalf.[1]

It cannot be repeated too emphatically that it is essential to create conditions under which both corporations and labor unions

[1] Commons and Andrews, "Principles of Labor Legislation," pp. 121–122.

will feel and act as responsibly as possible. Indeed, such a conscious assumption of responsibility for operating each industry as a social service is basic to industrial amity; but this responsibility cannot be secured by legal enactment. Its cultivation is not to be achieved in a hurry. The attitude of workers and employers alike has not been one which stressed their common obligation to the community. This sense of responsibility can be fostered by assuring to all parties the fullest protection to organize and deal together in open and honorable ways; and by urging throughout the community an attitude which sees in industry a public trust and a public service.

Incorporation of unions under present legal conditions would have, in short, a tendency to defeat the very features in them which it is advantageous to preserve; namely, the assured, effective, and continuous protection of the workers' rights by their own self-constituted organizations. This brings one to specific statement of a further value in the collective bargain.

4. The Value of Delaying the Resort to False Economies.—The collective bargain offers real protection to the employer against his natural impulse to economize in the easiest but not necessarily most sound way. One reason why the economy of high wages is not more readily seen by employers is that the pressure of competition and the demands of investors impel them to the most obvious and immediate retrenchments. Wage rates are one of the few items more or less within the employer's immediate control. The price of raw material is relatively fixed; machinery costs are given; selling costs are known; prices are set within narrow limits. Economy, the obvious and superficial economy, seems to lie in keeping the wage bill low. Even when managements understand the sources of real economy in better equipment, better routing of work, more economical methods of purchase and distribution, and better selection and training of workers, these may require initial expense and effort from which it will apparently take some time to benefit.

More often inertia and ignorance of the science of management prevent employers from attacking the big sources of leakage. Careless planning of work within the shop or in relation to sales, with resulting congestion in one department and idleness in another, poor handling of materials, meager production records, bad arrangement of machines, insufficient light or air, inadequate training of workers—to eliminate all these possible wastes for

which the management is responsible is certainly not an easy way out.

Moreover, it is hard for managers to believe in advance that the same group of men can do as much or more in eight hours than they can in nine, or perhaps do more or better work on $30 a week than they did on $25. Evidence exists to prove that such things have happened; but each employer's contention that his business "is different" may be convincingly met only by insisting that the results of possible new policies and methods must be determined by trial.

The employer, in short, needs constant and effective protection from the temptation to shortsighted economy in his wage bill and in prolonged hours of labor, and an active inducement to improve those terms of employment. The collective bargain assures the worker a continuance of living and working standards already gained, and holds clearly before the management the useful idea that those standards cannot be molested without endangering the energy and vitality of the workers and their families.

5. The Value of Uniformity in Terms of Employment over Competitive Areas.—There is another value in the collective bargain in those cases where the same agreement applies over a district, or where practically uniform terms are included in several agreements in any industry in different localities. This is the value of uniform labor standards below which no competitor is allowed to offer employment. Every manufacturer is familiar with the condition which W. L. Mackenzie-King has called the "law of competing standards,"[1] which states that there is a tendency for the terms and conditions of employment to fall to the level of the lowest terms and worst conditions which are offered in the industry.

This tendency is active despite the desires and efforts of the more intelligent managers in an industry; that is, it is active *unless there is an industry-wide organization of the workers to enforce upon all employers similar minimum standards.* The activity of such a workers' organization tends, as it is seen, for example, in the garment and boot and shoe trades, to discourage the small-scale family shop and the marginal shop, and to offer encouragement to those better managed units which have capital enough to provide adequate working accommodations and reasonable permanency of employment.

[1] MACKENZIE-KING, W. L., "Industry and Humanity," p. 67.

One important modification of this claim, however, does have to be made. It is fatal to the permanent success of collective agreements if an effective competitive area remains constantly unorganized and is for any reason able to offer the product at a price below that possible in the organized area. The outcome has here to be sooner or later definitely in one direction or the other, either all organized or all unorganized.

The drawing up and administration of collective bargains in this connection has educational consequences for the workers which employers should not ignore. Cases have not infrequently arisen where employers have said to the unions: "We cannot grant your demands and stay in business, as long as the employers in the other manufacturing centers in this industry do not have to deal with unions and live up to these terms and conditions which you demand. Go to those cities; organize the plants there and get them on an approximately equal competitive basis; then come back and we'll consider the demands."

In such a situation workers come to realize the extent of their community of interest with those of management. They come to realize the number and intricacy of the factors involved in effecting wage and hour settlements. They come to know that there should be a fact basis for those important decisions which concern them. This knowledge among the workers tends eventually to increase the stability and uniformity of the labor standards of an industry; for it means that the union usually does all it can to bring effective pressure upon the wayward and backward employers in a way that the other employers never can.

6. The Value of Defined and Standardized Occupations.—A further value of collective dealing is the impetus it gives to the standardizing of occupation titles and definition of standards of job competency throughout a trade or industry. Where membership in a workers' organization can be assumed to mean that the member is a *bona fide* and competent craftsman of his trade or industry, there is a real gain for all. It is, for example, important to have some agreed connotations for the words "machinst," "carpenter," or "plumber," and to have defined standards of workmanship attaching to those names. The name "boilermaker" when attached to a worker should mean a man who has passed through a certain period of apprenticeship or training at certain kinds of work, and who, by virtue of his title, is qualified to perform a certain range of jobs. Manifestly, it is

almost impossible to apply titles and craft standards from state to state in the absence of a fairly inclusive organization of the workers which would help to maintain both titles and standards.

There is at present a practical difficulty in the way of realizing this value. Under the constant urgency of securing "100 per cent organization," the standards of craftsmanship are too often not rigorously upheld by the union if the applicant can satisfy his fellows that he will make a "good member." The bars thus tend to be let down more frequently than is wholesome for the maintenance of careful classification of skill, and of the prestige of the craft. This is only another instance of how, as long as the union's attention has to be fastened on self-perpetuation, it cannot simultaneously be fastened on the maintenance of craft standards and the solution of other production problems.

7. The Value of Creating Employee Interest in Production.—It is finally important to consider a value in collective agreements which is only beginning to be capitalized on by a few farseeing companies—the possibilities of getting the labor unions to take an affirmative interest in production. It has already been urged that workers cannot be expected to interest themselves genuinely and affirmatively in the production process in the absence of certain guarantees. These guarantees have proved in practice to include assurance of regular work or, failing that, some form of unemployment compensation, fair wages, agreement not to cut wage rates, prompt handling of grievances, healthy working conditions. There are farsighted corporations not dealing with labor unions which provide these guarantees and give every evidence of securing from the workers that attitude of interest and loyalty which is desired. Other companies are sure to follow suit and, by these and various other devices such as sale of stock to employees, endeavor to attain that sense of partnership from the workers under which they are willing to become really interested in quantity and quality production at low unit costs.

Taking industry as a whole, it seems to be true that the guarantees which the workers must secure in order to assure also their positive interest in production will probably come through the pressure of collective bargaining as much as by any other means. The evidence from the men's and women's clothing industries in this country, from certain notable experiments on the railroads with the shop craft unions, and from isolated cases

in the paper-making industry, mirror manufacturing, and a number of other industries, increasingly substantiates this conclusion.[1] *Collective bargaining promises to be that form of joint negotiation for many corporations and industries which simultaneously protects the workers' vital interests and frees their minds from anxiety to such a degree that real cooperation in forwarding the productivity and welfare of the industry in which they work may be rightfully expected.*

Collective bargaining in its newer forms promises also to allow the use of legitimate incentive methods of work and pay, which the unions have to a considerable extent opposed up to the present. The objection may be offered that rewarding individual competence has been one of the unique values of the individual bargain. It was undoubtedly true that in times past by individual negotiations over terms of employment individual initiative was encouraged, incentives held out, and rewards adjusted to effort. It does not so work out under present-day arrangements, if we leave out of account the various premium methods of pay which have never had wide use nor been popular with the workers. The actual operation of individual negotiation is already limited. Wages in large plants are now set uniformly for all at the same job; standard rates prevail even where there is no collective dealing. In short, any value which the individual bargain ever had with manual workers in the direction of supplying initiative has largely disappeared. It remains to restore the incentive to individual effort by the use of just such plans as are now being employed under collective agreements, as described in Chapter XVIII.

Subject Matter of the Collective Agreement.—The logical question at this point is: What terms and subject matter should the agreement include, if it is to have its maximum business and social value?

There is much to be said for a type of agreement which is simple in form, leaving many details to be coped with by the officials charged with the interpretation and enforcement of the agreement. It is important, under any method, to have in mind the possible sources of disagreement, which should be defined in some way to mutual satisfaction. For this reason are listed the following matters concerning which some understanding is highly desirable:

[1] See the detailed evidence supplied in the references given in footnote to page 319.

(*a*) *Hours.*—This should include a statement of hours per day and per week, opening and closing times, vacation provisions, agreed holidays, rest periods, etc. There should also be agreed restrictions on the amount of overtime per day and per week, night work, and Sunday work.

(*b*) *Amounts of Work.*—Provision should be made for setting up jointly supervised machinery for defining fair amounts of work, classifying and grading jobs, stating minimum, average, and maximum production amounts at repetitive jobs, etc. The body which did these job studies might also be called upon to translate agreed hourly wage rates into equitable piece prices where piece-work payment prevails.

(*c*) *Pay.*—The agreement should either state the weekly or hourly rates agreed upon, or it should define how the rates of pay are to be arrived at. There should also be a stipulation, especially where the agreement does not expire at a fixed date, that rates of pay may be further negotiated after specific notice (say of 90 days) if some good reason (such as an increased cost of living) for reconsidering wage amounts arises during the life of the agreement.

(*d*) Standards of physical working conditions.

(*e*) Provision for joint machinery, first within the plant, then with agreed outside persons as arbitrators for the purpose of:

1. Administration and enforcement of the agreement.
2. Consideration of grievances.
3. Interpretation of the agreement.
4. Amendment of agreement.
5. Renewal of agreement.
6. Terms of admission of new workers.
7. Terms of discharge.
8. Terms of promotion.
9. Terms of introduction of new machinery and changes in process.
10. Study to determine production standards.

(*f*) Definition of the scope of joint dealing.

(*g*) Date of expiration of agreement (unless it is *in perpetuo*).

Careful study of this list will suggest why it is that collective agreements in the past have not always been as mutually satisfactory as they might have been. Some of the past omissions

have been due to careless and unbusinesslike procedure; some to lack of vision on one side or the other; some to an unduly narrow conception of the purpose or scope of collective bargaining. In so far as the fault is a matter of omission only, it is easily repaired; but there are real shortcomings in the collective bargain as now prácticed which should be faced.

Getting the Best Results with Collective Agreements.—The estimates of collective dealing offered by different managers who work with it naturally vary, but the judgment is favorable on the part of managers who accept the unions as a normal phenomenon and work with them on a straightforward basis of confidence and good faith; whereas the judgment of managers who enter into such dealings reluctantly is unfavorable.

Certainly, in the personal dealings with union representatives everything depends upon the kind of welcome they get at the hands of the managers with whom they deal. Like everyone else, union agents who find managers cooperative, open, and direct are much more amenable to work with and the agreement, in all its phases, works very much more harmoniously than otherwise.

The operating managers, in short, must be convinced of the value of joint dealings if they are to conduct them to best effect. They must be willing and able to meet the workers' delegates in a conciliatory way. Agreements which are satisfactory on paper will frequently go wrong in action if the managers and the union leaders cannot work together in this business-like and friendly fashion.

In this connection it is the consensus of experience that where friendly employers work sincerely with union leaders the leaders are willing and eager to accept substantial responsibility for interesting the rank and file in the work and in the industry.

Shortcomings of Collective Bargaining.—The most fundamental criticism of the collective agreement as it is now used is that *it concerns itself primarily if not exclusively with problems of the distribution of a portion of the income from the business.* It has already been explained why this has had to be so in the past; but it has also been suggested why in the future this need be less and less true. The key to an understanding of past and present union activities is a realization that *unions have been bodies of people acting together as consumers.* They have been primarily concerned with the protection and advancement of a standard of life. This has been not only defensible but essential; but it

has meant that the interest of the union members was less in production than in their rewards.

That is why the idea of joint conference on work as well as pay has been so stressed. The joint use of job analysis and the use of measured production is the bedrock on which the entire process of collective bargaining should be based. This new subject of conference has the incalculable value of gradually shifting the emphasis and point of view from issues surrounding rewards to those surrounding production. Not that this means the workers are to get any less of the total income. It means rather that they will have become so assuredly and avowedly partners in the determination of wages and other rewards that this is taken for granted, and attention is turned toward production.

In short, the usual collective bargain of today errs on the side of too great attention to the division of the income and too little attention to assuring that economical production takes place.

Again, collective bargaining confined to one plant, or even to one district, may give temporary advantage in the selling market to those plants where union conditions are not enforced. This is not always true, since the union conditions may increase production and lower costs; but where the differences in terms are extreme, the isolated unionized plant may be at a temporary disadvantage. It is unfair, indeed, for such a shop to be pitted against the efforts of the shop of the most unscrupulous and selfish non-union employer. There is no relief of permanent value short of having these other plants brought under similar conditions of collective dealing. In short, this is not so much a shortcoming of collective bargaining, as it is a result of its slow extension. What is increasingly needed is joint action not confined only to single plants or localities and not restricted merely to consideration of the immediate terms of employment.

It is this next step in the hierarchy of industrial government which will be considered in discussing national industrial councils. For there is clearly developing a need, from the point of view of effective business organization, for a basis of common action between the organized employers and the organized workers of an industry on a district and on a national scale—bodies which shall be influential in determining common policies on those fundamental matters of production, labor, and other relations where competition has proved destructive, demoralizing, and hurtful to all.

Objections to Collective Bargaining.—Already in assessing the business values of joint bargaining some of the familiar objections have been considered. It will now be useful to summarize these and to complete the list of objections which deserve serious consideration. These objections are stated in the terms most usually employed.

(*a*) Workers do not want collective bargaining; they prefer the liberty of individual contract.

In so far as this objection is not one which the legally minded employer has put into the mouths of the workers, it is on a par with the citizen's objection that he does not want to send his son to school, or does not want to pay taxes to provide improvements on his neighbor's street. "The illusory freedom of the individual bargain," says Mr. Webb, "must give way to the compulsory freedom of the collective bargain." There will always be workers, of course, who are acutely individualistic and reluctant to align themselves with labor organizations because of fear, indifference, inertia, pride, stubbornness, or other causes. Their attitude offers no more valid objection to the claims in behalf of joint dealing, than the selfish father's or taxpayer's objections offer to education or taxes.

The objection arises out of a conception of individual freedom and of the ways it may be secured which does not hold true and sound under twentieth-century economic conditions. Liberty is increasingly being seen as a state of affairs in which some moderate restraints upon individual whim are a necessary condition of the true freedom of large numbers of people.

(*b*) If the employer treats his workers fairly, there is no need for a labor union.

This is today perhaps the most frequently met objection among the more enlightened managers. The feeling is strong that they can give the workers almost everything essential which collective bargaining might also bring. The fundamental fallacy here is the failure to realize that the one thing needful cannot be supplied by the employer; namely, *the worker's experience of learning to act on behalf of his own aims and desires; that is, the worker's process of self-development and self-realization.* It is true that thoughtful managers can and are doing much which, on the material side at least, may even exceed what could be expected through collective bargaining for some years; but the problem is not merely a material one. It is at bottom a problem in the quality, character, and

improvement of the personalities of the workers involved. The employer's benevolence may mean much, but it cannot provide employees with self-respect, self-assertiveness on behalf of their purposes and desires, or self-consciousness of their place and power in industrial society. These are things they must learn by experience, by the experience of trying to define, affirm, and advance their own group aims. This experience, it seems to have been reasonably well demonstrated, the workers get in the labor union as they get it nowhere else. Shop committees can and are doing much in this general educational direction; but until the workers have some wider affiliations than the shop, they can never be sure of struggling successfully for what is often rightly theirs. They can never take quite the same independently aggressive and determined stand that the strong labor union can.

(*c*) Unions go out on a sympathetic strike when they have no direct dispute with their employer.

This has been true in some cases.

(*d*) Unions do not keep their agreements.

That this statement also contains a measure of truth cannot be denied. It would be true also to say that employers do not keep their agreements. It is, in both cases, a too sweeping generalization. The proposal of incorporation in order to make unions accountable and responsible has already been considered. On the whole, the conclusion is that maximum success in holding both sides to their word results from having strong organization on both sides, amicable personal relations between the leaders on both sides, and a common desire for fair play.

(*e*) Unions make it difficult to discharge the inefficient.

To the extent that this is true, a remedy lies at hand in securing joint agreement on standards of workmanship at each job. As to other causes for discharge, there should also be a definite joint understanding and method of adjustment.

(*f*) Unions make it difficult to reward the efficient; they put a premium upon mediocrity.

There is a certain force in this objection; but the condition is not in any way inherent in collective bargaining. It is merely a characteristic of some collective bargains that are not well-drawn, and of collective dealings which do not include provisions for setting up production standards. Moreover, some unions contend with justice that their union wage scale is only a mini-

mum scale; also, the limited extent to which superior individual workers in non-union shops are paid above the going rate does not indicate that there is any widespread desire among employers to pay high differential rates.

Again, there are an increasing number of collective agreements in which the utilization of production standards encourages the efficient and rewards them accordingly.

(*g*) Unions limit output and restrict the use of labor-saving machinery.

This is another sweeping generalization which has a certain fact basis. It would be equally true, however, to say that *all* workers do both of these things. It is an almost inevitable consequence of a condition of bargaining over pay but not over work, and of a condition of economic insecurity. Indeed, as already shown, relief from a policy of limitation is *only* to be found in the joint conference and agreement on amounts of work which collective bargaining may and should entail, and on ways and means of introducing new machines.

(*h*) Unions create confusion and interruption of work by jurisdictional disputes over which the employer has no control.

There is a measure of truth in this criticism, although it is a diminishing feature of union activity, found mostly in the building trades. The unions themselves are keenly alive to the unwisdom of such disputes, and much is being done both by specific adjudicating machinery and by federation among unions to remedy the present situation.

(*i*) The presence of unions and collective agreements submits the employer to negotiations with and control of certain items by an *outside* agency; the unions tend to "run the shop."

We have already shown that such "outside interference" is really a benefit to the employer since it helps to secure adequate protection of the workers' interests. It is, moreover, not an outside influence, if only managers will accustom themselves to viewing the problems of all the shops of an industry as interrelated and interacting. Some of the most regrettable shortcomings in managerial thinking today are due to this failure to realize that *no shop works or can work unto itself alone.* In the most vital problems of labor relations it is increasingly imperative for the manager to think in terms, not of the shop, but of all the shops of an industry; and the union agent, as the spokesman of the organization of the workers of an industry at large, is as

necessary a functionary as the executive secretary or the legal counsel of the trade association to which the company belongs. To stigmatize him as an outsider is simply to ignore the necessarily elaborate structure of modern industrial government.

Where the objection that the union tries to run the shop has any foundation, it is due to abuses of the collective principle for which both sides are probably to blame. The objection assumes that employees' efforts toward control are irresponsible, unreasonable, and arbitrary. In individual instances such may be the case; but in the machinery which the collective bargain should provide, if it is properly drawn, lies the remedy for any serious ambiguity and discord over shop control. Often, also, unduly arbitrary conduct on the part of workers is due to ignorance of the relevant facts; a condition which may be remedied by proper research and publicity.

(*j*) Union demands culminate in a stand for the "closed shop." This restricts the freedom of any worker who does not join, and hence is "un-American."

It is true that unionism in order to fulfil its purpose—indeed in order to be sure of its existence—logically implies that the shop shall at least give preference in employment to union workers. Otherwise, the union members employed would be gradually superseded and the collective agreement would no longer have binding effect on the new workers in their dealings with the company. If the union is to be responsible in any degree for upholding its end of an agreement, it must have assurances that the great majority of employees are its members.

The only question of fundamental importance which may be raised in this connection relates to the ease with which the union may be entered. There are probably some trades in some cities where the rules for admission to the union are unduly severe. Where such a union has a union shop agreement, hardship may result to the non-union worker because of his inability to meet the conditions of membership as a condition of employment. The more usual case in a union shop is that there is a reasonably "open union," that is, membership is easily secured. So long as there is an open union, there is no serious infringement of any individual's freedom, *if one understands the conditions under which any reasonable measure of real freedom may today be assured.*

(*k*) A final objection sums up the feeling of annoyance at having one's power interfered with when it says that collective

bargaining is "all right in principle, but not in practice." By this statement the manager usually means that he has not the patience or the faith in the positive elements of human nature to undertake the mutually educational project which collective bargaining really is. Or he may mean that his own plant "is not ready for collective bargaining," or that while recognizing it as eventually inevitable, he desires "to be boss in his own shop" as long as possible.

Or again, he may mean that the union or unions in his industry are (1) corrupt in leadership, (2) too weak in point of number of members, (3) ignorant in leadership, (4) not organized in enough of the competing plants to enforce the same labor standards on all competitors and thus equalize this factor in competitive costs. Objection on these points when honestly advanced certainly has in many cases a good deal of justification. The contention in discussing collective bargaining is not to suggest that in all industries and under all conditions and circumstances it is today a good thing. Obviously, each case has to be treated on its peculiar merits.

Rather is it the purpose to show the functional case for the gradual extension of collective bargaining when, as, and if the workers themselves organize to bring it about. In those instances where collective negotiation is today working smoothly, it may be shown also to be a business asset and to have economic values for which no substitute has yet been found.

The manager who is disposed to admit that despite its shortcomings the collective bargain is probably the direction which negotiation with employees must take today may still object, however, that a different kind of organization, a different type of leadership, a different prevailing animus and bias from those now usually found in unions are all required if collective bargaining is to succeed as a constructive force.

With such a manager we have considerable sympathy. For it is certainly true that to bring the great body of trade unionists to view their industries as *theirs* and themselves as responsible for the productivity and success of their industries involves a radical shift of emphasis. One should not under-estimate how considerable may be the education required in certain unions to create the outlook here proposed. Indeed, in some few cases the power of adaptation to new needs may have disappeared. Where this is true, there will be but one solution:

Another organization of the workers must (and will) grow up to supplant the old.

Indeed, the labor unions are suffering from a post-war reaction, from which they are likely to recover only as they show themselves interested in something besides the income which they get out of industry. They must show that they are interested also in productivity, in economy in operation, in reduction of costs. As it becomes clear that this new emphasis is growing, the influence of the unions with workers, managers, and consumers alike, will gain greatly. Certainly, it is true that the official interest of the American Federation of Labor under its present leadership is markedly in this new constructive direction.

Evidences of the development of this positive proprietary attitude toward their industry have increased notably in recent years in a number of large and powerful unions. Never have there been more hopeful signs that the leaven of this new attitude is capable of extension from one union to another.[1]

Conclusion.—The estimate of collective bargaining as having business value is favorable with the qualifications stated. A much more adverse picture of trade unions easily could have been painted if it were desired to emphasize those unfortunate cases of corruption, dishonesty, intrigue, inertia, and irresponsibility, which could be cited. Yet, were the worst that may be said of unions and of bargaining with them admitted, it would still be concluded that from the business point of view it would sooner or later be necessary to create some comparable organization of employee opinion for certain essentially business purposes.

Indeed, employers are already doing this in the shop committee development. It is idle to suppose that there will not soon grow up a degree of federated activity among shop committees which will form in essence the same kind of bodies that unions are. Organization of workers, both within plants and among plants, is as essential to any stable industrial structure as organi-

[1] Policies of the international unions change, of course, with changes in administrations; but the following unions have been seriously at work in the problem of strengthening their interest in production for a long enough period to warrant belief that the change is reasonably permanent: The Amalgamated Clothing Workers of America, the International Ladies' Garment Workers Union, the United Cloth Hat and Cap Workers' Union of North America, the International Machinists' Union, the Railroad Department of the American Federation of Labor.

zation of the same citizens simultaneously into a hierarchy of precinct, ward, city, county, etc.

Collective action, the dealing of group with group, associated negotiation of those having one purpose and point of view with those having another—this is necessary and valuable to the employer today just as are stable relations with the banks and with distributing organizations.

Says ex-President Taft:

> Whether we will or not, the group system is here to stay, and every statesman and every man interested in public affairs must recognize that it has to be dealt with as a condition, to be favored in such a way as to minimize its abuses and to increase its utility.

The practical business utility of the collective agreement may unquestionably be increased; but this is not the work of a day or a year. It is an enterprise on which every employer desirous of creating good will, mutual understanding, and closer personal association between managers and men can profitably embark. He can commence through shop committees on job analysis and wages to establish a wholesome basis for adequate common knowledge and action. The employer who is already party to a collective agreement can help to make it a more effective instrument in those ways already mentioned.

Progress will have been made when employers become convinced that collective bargaining properly conducted is one of the principal means of restoring interest in work, creating a sense of self-respect and human dignity in the workers, and educating managers as well as managed into their respective responsibilities for a productive industrial system.

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CHAPTER XXXII

EMPLOYERS' ASSOCIATIONS AND PERSONNEL WORK

That it is a good business proposition for corporations to join employers' associations is now recognized by the majority of managers. It may be less clear, however, that the work and the character of those associations are likely to influence the labor policy and procedure of each constituent company; but such an influential relation exists. For that reason, the several types of employers' bodies and their functions in relation to the work of personnel administration will be considered.

This demonstrable relationship is of two distinct types—positive and negative, constructive and repressive. It is essential, therefore, for the personnel manager in his efforts to maintain right labor relations to appraise the influences of the affiliations of a corporation upon its own labor policy. These affiliations may be employers' organizations of four types—a local, general body of employers; a local trade association; the national trade association; and other miscellaneous national industrial associations.

Local Associations.—The local chamber of commerce is usually a preponderantly employer group. Its influence in the local community is often great, but its direct connection with the operating problems of industry is not usually close unless it has an industrial relations committee which seeks to prevent strikes by mediating or arbitrating labor disputes. In some cities there are special committees in the chamber which are active in following labor legislation and in improving the administrative ability of the executive staffs of its member corporations by instituting special conferences, courses, or institutes in some major branch of management.

The local "employers' association," since it is composed primarily of manufacturers, is in a position to have more direct influence in the practices of each individual plant. While it is impossible to generalize with accuracy, it has been largely true in the past that these associations have often been defensive and repressive bodies. Their policy has too often been one of "anti-

unionism," "anti-union shop," "anti-picketing," "anti-boycott." So zealous has been their desire to carry out these purposes that in some cases they have under one guise or another distributed information to their members as to "undesirables," "agitators" and "organizers" who are discharged from the plants of any of their members. To make this weeding-out policy truly effective, they have sometimes encouraged their members to employ detectives to identify the "uneasy element," and help to eliminate it.

Clearly this is a negative program, which in practice has led nowhere. Such repressive policies have become known to the workers of the locality. It has constituted an invitation to self-respecting workers to stay away, or else to come in with the deliberate intention of organizing employees to make vocal their grievances. There are localities in this country where the deep impress of this "anti" policy has so reflected itself in the employment office of every plant that it has been a distinctly handicapping influence, expressing itself in the type of workers who applied for work, in their working spirit, in the attitude of executives and foremen, in the whole labor policy of the plant.

This is the more regrettable because the positive measures which might be taken are so many. The local employers' association can in many places help greatly to consolidate the labor market; yet in times past the tendency has been for employers' associations to confine employment work to the placing of avowedly non-union workers willing to go to aggresively non-union shops.

Much could also be done cooperatively by local employers on such matters as local housing and transportation. Much may be done in the cooperative use of industrial doctors, nurses, and special experts to direct training courses; in the teaching of English; in the study of the local cost of living; and in the reduction of local living costs such as rents. Nearly all of these matters have been thus cooperatively handled in one place or another.

If the local association proves to be persistently unwilling to act in these cooperative directions, the progressive employer's policy may have to be one of independent action. He should, of course, do all in his power to effect changes in the association's policy by "boring from within." Beyond a certain point of tolerating a policy of which he does not approve, he is clearly justified in resigning and perhaps is even morally bound to. He should

then let his position be distinctly known to his workers; and in this way avoid the unfavorable working-class reputation which so usually attaches to the plants of members of employers' associations which are actively repressive in policy and practice.

The Local Trade Association.—There are a number of useful purposes which a local group composed of the employers in one industry or trade may serve, which by their nature general employers' associations cannot fulfill. Such bodies as local trade associations will be referred to here. In the first place, they can form the logical group with which local employees in the industry can deal on matters affecting both parties locally. Local hours and wage rates may be kept uniform; working conditions maintained at a reasonable minimum; a common reserve of trained workers drawn upon, and irregularity of work be thus reduced. There are in the printing, textile, boot and shoe, building, clothing, and cigar-making trades, for example, an increasing number of local, city, or district collective bargains which help to stabilize conditions, level-up labor standards, and reduce interruptions of work due to strike and lockout.

Moreover, in cities where there is a large group of employers manufacturing one product, the additional possibilities of further cooperation are almost limitless. The trade association for example, can join with the community to improve the quality of local education and relate it in useful and interesting ways to the local industry; and to conduct classes for foremen and ambitious workers. It can develop a common technical library in the local public library and local exhibits of processes and products. It can help in the cooperative purchase of supplies, maintenance of warehouses, development of power plants, use of terminal and transportation facilities, etc.

Some associations are even hiring production experts, cost-keeping experts, and personnel counselors to familiarize their members with the latest procedure in these fields, to help them install modern methods, and to collect production and personnel records which are of comparable value throughout the locality and throughout the industry.

Such a constructive policy requires leadership and imagination; but its relation to the spirit and method of the personnel work of each of the cooperating plants is close; and its results are almost inevitably wholesome. Perhaps the most useful service rendered by an active and wisely led local trade associa-

tion is its demonstration to each employer that there are some problems vital to the right conduct of his plant which can be solved only as they are dealt with by the common action of the local group. He will come to see, indeed, that beyond the local group there are also other similar groups in the same industry in other parts of the country, to whom he is bound.

National Trade Associations.[1]—It is only possible here to list and touch upon some of the functions of national trade associations which obviously relate to labor questions. There is not as yet any extensive personnel work in the offices of most of the national bodies; but there are vital points at which their activities might contribute to the adequate handling of employment problems by the individual employer. They can collect comparative wage data, cost of living figures, unit labor costs, labor turnover figures, accident and sickness records, and the like.

All the national trade associations have annual conventions of several days' duration, and the educational value of these gatherings is increasingly appreciated. At certain sessions it is customary in some associations to divide the convention into sectional meetings at which different technical problems are discussed by experts. New ideas in personnel management have spread far faster than would have been otherwise possible, because of the opportunity thus afforded to leaders in this field to meet large groups of owners and managers face to face in conference; and because employers have been willing and eager to leave their own shops to discuss problems and new methods in terms of their widest possible application.

The proceedings of these conventions are printed, and useful ideas thus reach a wide audience in each industry. This educational work is further supplemented in some cases by the distribution of occasional trade bulletins, reprints of pamphlets and the preparation of informational material for trade papers.

The fostering of trade research is a useful function of the national trade group. Nor should the research be confined to problems of process. Ideally, it should be undertaken in all departments of staff management. If, for example, there are processes known to be unduly arduous or harmful to the workers,

[1] Examples of bodies of this type are the National Cotton Manufacturers' Association, National Metal Trades' Association, National Founders' Association, American Iron and Steel Institute, The Tanners' Council of America, etc.

which could be improved through the use of labor-saving machinery, research for harmless and easy methods should be instituted. It will be seen readily that the work of job analysis in any one plant will tend to uncover a number of problems urgently calling for further study, but which are common to the entire industry and should be studied once and for all by the industry in order that when solved the entire industry may benefit by the improvement. In research work of this sort, moreover, the cooperation of governmental and employee bodies should be sought.

The fostering of cooperative purchasing of raw materials is usually considered a distinctly "business" function; but with the organization of markets for raw materials on a world scale, an industry in any one nation that does not buy economically may be at such a definite disadvantage that the ill effects of this upon the industry's prosperity will immediately affect the workers.

In the same way, the necessity, especially for purposes of foreign sale, of a nationally organized agency interested in the marketing problem, is becoming widely recognized. While the trade association cannot become a selling agency, its advice and leadership may be of great value in unifying selling agencies, in reaching foreign markets, in discovering the peculiar conditions of demand in any country, or its special problems of shipment or finance..

The extraordinary economies resulting from standardization of styles, parts, designs, grades, and names of materials and products are now generally recognized. While there are wise limits to such standardization, a strong trade association can do much to promote this work. Policies of any sort simply cannot get momentum throughout an industry if there is no organized and organizing agency to keep constantly at work.

Trade associations, as was shown during the war, may also undertake one task which is fundamentally related to regularization of work. They may make and keep current an inventory of the producing capacity of the entire industry. As already pointed out, a first step toward "organizing the demand" for an industry's product is to know the industry's potential producing power—because sooner or later there must be some correlation of that producing power with effective demand. In the absence of correlation, production tends to outstrip demand in a way that invites market disorganization and depression.

Organized contact with governmental bodies on the commercial, legal, mechanical, and labor aspects of the industry's problems is another necessary service. The federal government is greatly in need of some one representative group to deal with in every industry, whenever administrative or legislative problems affecting it arise. Issues which relate to tariffs, railroad rates, pending legislation in sundry fields, all call for testimony from those representative of each industry.

When the issue relates to the labor problem, there is a peculiar service of representation to be rendered by the association. The unifying of labor policies and practices is increasingly necessary to an industry's stability. Consider, for example, the question of uniform cost systems. There are still many companies which offer a price on a contract when they have only an approximate knowledge of its cost. Occasionally, if they get the contract they find that their price does not allow them to break even. In order to keep solvent, such firms pay low wages and offer generally low labor standards.

Under such conditions, the company which knows its costs and makes its bid in relation to them is at a conspicuous, if temporary, disadvantage. The inducement to maintain high labor standards thus suffers a temporary setback. The ignorant and unscientific management has temporarily won out against the better-organized plant. *The installation of a uniform cost-keeping system throughout an industry is, therefore, one of the first conditions of assuring every firm's ability to pay decent wages, work reasonable hours; in short, compete at a level where the exploitation of the workers is not the conspicuous attendant condition.* Until every company is bidding on a basis of prices *known to cover the legitimate costs*, an industry's progress is handicapped, and the most egregious exploiters set the pace.

In some industries the policy of uniform cost keeping is carried a step further by the device of the "open price,"[1] under which all firms agree to record at once with the association the price which they are charging for all orders closed. These prices are then assembled in a daily or weekly price list which goes to all members; and any management which finds that its prices are noticeably high can then proceed to study out the causes of its excessive costs.

[1] For full treatment of this subject see Eddy, A. J., "The New Competition"; and Nelson, M. N., "Open Price Associations."

Another successful method of eliminating that "unfair competition" which has in times past been a demoralizing influence upon the workers of an industry is to have uniform standards of purity or quality, uniform grading methods, uniform terminology. The manual worker has always been more or less a party—or at least a silent witness—to employers' questionable methods of labeling, grading, and manufacture. Once a whole industry has agreed upon a certain level of manufacturing standards, this offense against common honesty is greatly reduced.

A special aspect of personnel activity on which there has already been interesting experimentation on an industry-wide scale is in the field of apprentice training. In at least one industry—the printing trade—a formal apprentice training is instituted with the approval and to a certain extent under the joint direction of the national organizations of employers and workers. There is a training director for the entire industry; courses of study have been worked out; scholarships are provided. This is a good example of the benefits to be derived from developing the administration of one of the fundamental features of personnel administration for the use of an entire industry.

Further experiments in this field have been undertaken in several local building-trade centers.

There is also a great field for the use of a permanent executive on the staff of the trade association who can advise on matters of labor policy and procedure. He can, for example, conduct an information bureau as to new experiments in the personnel field; help companies to find suitable executives; undertake personnel research; know in detail the labor situation of his industry; keep current records of its wage scales, hours, etc. In short, he can be to the industry what the personnel manager is to the factory, its staff expert and advisor on personnel problems. Finally, where conditions are ripe, he can be the means of bringing representative groups from the employers and the employees of the industry together for joint consideration of their common problems.

The case for the national trade association needs no elaborate arguing. It is in place, however, to emphasize the statesman's rôle which such bodies may play in industrial relations work, if only the possibilities are appreciated.

The employers of an industry, when once organized, may of course, adopt an illiberal attitude toward personnel administra-

tion. They may maintain a negative attitude toward the manual workers; may prefer to dwell upon conflicts of interest rather than upon points of common interest with the employees. They may become union-baiting agencies. We see less likelihood of this happening in the future than in the past, however, in the light of the present wide interest in positive and preventive measures. A conservative organization is probably better than none, for it offers the foundation for future building. This analysis will have been unsuccessful if it is now not clear that *the maximum degree of nation-wide organization on the part of both employers and workers in each industry is indispensable to the eventual building up of a sound and scientific structure of industrial government.* Until the point is reached where the employers of an industry are at least 75 per cent organized throughout the nation[1] and the employees are organized to a like degree, the industry is not ripe for those developments of industrial government which will yield the best results in the associations' activities.

Speaking of the significance of strong organizations of workers and employers, an English statement of the case is not without relevance to this country:

> Yet the possibilities of combined action which lie in these two great groups of highly organized and powerful bodies might transform the whole face of industrial life. Their united knowledge of both sides of the industrial process should enable them to throw light on every phase of its successive developments. Their united strength would render them, in combination, practically irresistible. But to secure the realization of these possibilities the cooperation between the two groups must be continuous and constructive, and must be based upon a recognition of the common interests of employers and employed, both as parties to industry and members of the community. Both the Employers' Association and Trade Unions must learn to regard themselves as joint trustees of one of the most important elements of the national life.[2]

Other National Associations.—The general national associations of employers aim largely to educate employers and public opinion. There is in this group the National Manufacturers' Association which interests itself in broad questions of industrial

[1] This means 75 per cent of the total volume of production as well as 75 per cent of the total number of employers.

[2] Garton Foundation Memorandum on "The Industrial Situation after the War," reprinted by U. S. Shipping Board, Emergency Fleet Corporation.

policy in relation to the government, the workers, and the consumer.

The United States Chamber of Commerce, especially through its industrial relations committee, attempts to crystallize employers' opinions on broad industrial policies and on specific matters of pending or proposed federal legislation.

The National Industrial Conference Board is a research body composed as an association of trade associations for carrying on elaborate studies of pertinent issues in the whole industrial field.

There is the National Civic Federation, not strictly an employers' association, but one whose purpose is to provide a common meeting ground upon which the representatives of "capital and labor" of the nation can come to a better understanding of the labor problem and of each other.

There is the League for Industrial Rights which is devoted to a consideration of the legal phase of the relations of employers and employed.

The American Management Association is the national body whose interests are most directly in the personnel field. It is composed of companies and executives who are concerned with the improved handling of managerial problems, with special emphasis on those having personnel implications. The conventions and publications of this organization are of great value to personnel experts who desire to keep informed on developments in the practice of personnel management.

A still further association which has had an educative influence quite out of proportion to its popularity or size is the Taylor Society. Nominally committed to the promulgation of the science of management as conceived and interpreted by Frederick W. Taylor, this group has really interpreted the application of a scientific habit of mind and approach to the whole managerial problem. Its meetings and bulletins have also exerted a wide and beneficial influence; and in the personnel field its influence has been signal in bringing organized labor to a sympathetic understanding of the true meaning of a science of management.

Conclusion.—Employers' associations offer large opportunities for constructive service, especially those trade organizations in which employers are brought together by their common interest in the same industry. Many and almost unrealized are the positive gains which it is possible to secure out of cooperative action. Happily, every influence is combining to make trade

associations not only useful but indispensable. For in strong trade associations, ably led, and mindful of the business value of a liberal policy, lies one hope of amicable transition to a basis of conference with workers who are likewise widely organized. Industry is, if managers but knew it, tending to organize over a wider and wider area to make possible joint contracts of managers and manual workers working together to control each industry on a national scale and with a social purpose.

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CHAPTER XXXIII

NATIONAL INDUSTRIAL COUNCILS

A national industrial council, as the term is used here, means a joint standing body equally representative of the nationally organized employers and workers of an industry. The term is an English one and was applied originally to bodies so constituted in a number of English industries.

Throughout this volume the use of illustrations of industrial procedure from other countries has been studiously avoided because conditions in the different countries are not analogous and proposals always must be modified to suit local needs. In this instance, however, a brief exposition of the English movement with the reasons for it will be in point, since those reasons in part are reproduced in this country. American managers can learn something from the success and limitations of the English development.

The English Councils.—In March, 1917, a sub-committee of the Reconstruction Committee, later the Reconstruction Ministry, presented to the War Cabinet its First (Interim) Report on Joint Standing Industrial Councils. This report recommended:

> The establishment for each industry of an organization, representative of employers and work people, to have as its object the regular consideration of matters affecting the progress and well-being of the trade from the point of view of all those engaged in it, so far as this is consistent with the general interest of the community.
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> With a view to providing means for carrying out the policy outlined above, we recommend that His Majesty's Government should propose without delay to the various associations of employers and employed the formation of Joint Standing Industrial Councils in the several industries, where they do not already exist, composed of representatives of employers and employed, regard being paid to the various sections of the industry and the various classes of labor engaged.
>
> It is not enough to secure cooperation at the center between the national organizations; it is equally necessary to enlist the activity and support of employers and employed in the districts and in individual

establishments. The National Industrial Council should not be regarded as complete in itself; what is needed is a triple organization—in the workshops, the districts, and nationally.

In order to get the proposed functions of these councils clearly in view, the following is also quoted:

Among the questions with which it is suggested that the National Councils should deal or allocate to District Councils or Works Committees the following may be selected for special mention:

(*i*) The better utilization of the practical knowledge and experience of the workpeople.

(*ii*) Means for securing to the workpeople a greater share in and responsibility for the determination and observation of the conditions under which their work is carried on.

(*iii*) The settlement of the general principles governing the conditions of employment, including the methods of fixing, paying, and readjusting wages, having regard to the need for securing to the workpeople a share in the increased prosperity of the industry.

(*iv*) The establishment of regular methods of negotiating for issues arising between employers and workpeople, with a view both to the prevention of differences, and to their better adjustment when they appear.

(*v*) Means of ensuring to the workpeople the greatest possible security of earnings and employment, without undue restriction upon change of occupation or employer.

(*vi*) Methods of fixing and adjusting earnings, piecework prices, etc., and of dealing with the many difficulties which arise with regard to the method and amount of payment apart from the fixing of general standard rates, which are already covered by paragraph *iii*.

(*vii*) Technical education and training.

(*viii*) Industrial research and the full utilization of its results.

(*ix*) The provision of facilities for the full consideration and utilization of inventions and improvement designed by workpeople, and for the adequate safeguarding of the rights of the designers of such improvements.

(*x*) Improvements of processes, machinery, and organization, and appropriate questions relating to management and the examination of industrial experiments, with special reference to cooperation in carrying new ideas into effect and full consideration of the workpeople's point of view in relation to them.

(*xi*) Proposed legislation affecting the industry.[1]

[1] For all the earlier documents in connection with the Council movement, see "The Industrial Council Plan in Great Britain," Compiled by the Bureau of Industrial Research, New York.

At the time this report was submitted, industrial unrest and tension in England were acute. It seems to have been the Government's conclusion that favorable action on the report would relieve the tension. The Ministry of Labor was therefore empowered to proceed with the calling together of such councils in those industries where both sides were strongly enough organized to provide a substantial nucleus to work with. Beginning gradually, the organization of standing councils has gone on until now, despite about thirty disbandings, they are still operative in over forty industries in which are included over two million workers. The significance and utility of the movement is by no means at an end. England has proceeded, indeed, to apply an idea which has real vitality and potentially great significance in the structure of industrial government.

Reasons for the Movement.—The idea of a joint national industrial council did not emanate fully developed from one person or group; nor did it get its momentum wholly by virtue of its inherent logic or wisdom. There had been a play of minds and forces to get the idea into practical politics; several urgent reasons combined to make it flourish.

England wanted, and still wants and needs, high productivity. She cannot get it with industrial conflict, ca'canny, sabotage, limitation of output, and strikes rampant throughout the land. She cannot get it under a competition which ignores quality, which creates high charges for competitive selling abroad, which allows the least efficient manufacturers to dictate the terms on which an entire industry shall employ its workers. In other words, the demand for large output and low unit costs creates the first reason for agreeing upon a "get together" policy.

The councils encourage the creation under them of a peaceful conference method of adjusting differences. This is more economical than appeals to force; it is more sensible; if properly used, the method proves more satisfactory for all parties. The workers, finding that their share in control is a vital and increasing share, are disposed to favor negotiation instead of strikes.

Again, an industrial council can eliminate the worst forms of competition. To a reasonable degree, it can help to standardize styles, parts, and designs. It can begin to create an opinion which will eventuate in the abolition of private monopoly in raw materials and in the abuse of patent rights. It can assure that the competition shall be for quality of goods, and not for mere

cheapness of price at the expense of the human standards of the industry. That is, it can level up and approximately equalize the conditions and terms of employment throughout an industry.

These reasons for adopting councils hold also with almost equal force in relation to American conditions. But are the broad outlines of the proposal itself suitable to meet American needs? Careful analysis of the details of the plan is needed before judgment on this point can be finally made.

Essentials of the Council Idea.—First, the council is *not* primarily an adjudicative body; nor is it formed under the usual collective agreement terminable at a specified date. The agreement takes the form of a permanent instrument. It is virtually a constitution, a body of basic law governing the scope and method of joint procedure in an industry. This should mean no loss of flexibility in determining labor standards; it simply means that demands for changes in the terms of operation are to be considered with a minimum interruption of work and a maximum use of orderly parliamentary conference, as provided for under the terms of the basic understanding.

Second, the council and all agencies subsequently created under it recognize flatly in their composition the principle of equal representation for the two parties—organized employers and organized workers. Far from there being any question about the legitimacy or value of organization on either side, it is seen to be essential to any integrated, intelligently conceived plan.

Third, the power to deliberate, advise, and even decide upon many more matters than the usual wages, hours, and conditions is usually turned over to the council. Inevitably, as both sides have the capacity and the power which a comprehensive industrial association brings, they will see the advantage of conferring over a wide range of problems. Specifically, the councils give joint consideration to methods of conference and shared responsibility, methods of settling disputes, training, research, introduction of improvements, proposed legislation, and the like.

Fourth, there is the value in the council plan that it does not desire to centralize all power and authority. It seeks deliberately to get district, local, and shop groups to undertake responsibility for problems relating primarily to those smaller groupings. It invites decentralization. Indeed, it must, if the support and interest of the individual workers are to be permanently secured. In short, the principle of function is adopted, and each body is

expected to assume jurisdiction over those matters concerning which it, and it alone, is informed, specially interested, and competent to decide.

It will be seen from this analysis that the idea has been carefully worked over; and that the plan is calculated to meet the tests of practice. Nevertheless, it is still far from perfect, and careful consideration of its limitations is necessary. For it is precisely these shortcomings which can be profitably avoided by managers in America who decide to undertake any sort of national joint conference.

Limitations of the Council Idea.—At least three important limitations to the council idea should be noted. There is, first, no recognition of an active public interest in the deliberations of the council. Only two of the parties are given voice—the employer and the worker. Neither the direct consumer nor the general community interest is represented. If the idea of representation of divergent interests is to be applied, it should be consistently applied, and not leave the important consumers' and the public's regulative interests ignored and without voice. If adjustment is to be reached by securing a balance of forces—by securing a temporary equilibrium of groups which are still trying to find a common purpose on which to build—the likelihood of a stable and equitable adjustment is greatest when every possible disturbing factor and every vital interest are allowed free expression and consideration. There is the danger, as the English Fabians point out, "of exploitation of the community by combinations, *i.e.*, of employers and workers of a trust character whose objects might include the forcing up of prices."

Second, there is not any explicit recognition that standards of a "fair" day's work and a "fair" day's pay are necessarily *progressive* and not static standards. Needless misunderstanding and ill will arise in industry through the present failure of one side or the other to see that "reasonableness," "just compensation," and "efficient workmanship" are concepts as relative as the term "nearness" when applied to the stars. Industrial constitutions will be in danger as long as employers, for example, do not realize that the workers' demands are not necessarily going to stop at some fixed point. Their desire for shorter hours, higher earnings, better shop conditions, for more voice in controlling price and output, promises to assert itself for some time to come.

In the third place, the council scheme definitely fails to include the purchase and allocation of raw materials as one of the matters for joint determination. As an immediate proposition, that omission is probably politic and discreet; but no one can watch the increasing rôle which coal, iron, wheat, cotton, wool, copper, hides, and rubber—to mention only some of the most obvious commodities—play in industrial and international destinies, without getting an uncomfortable impression that to consider industrial relations without considering where the raw material is coming from, how much it costs, where it is going, and what use is to be made of it, is like trying to solve an equation in which the crucial factors are unknown. Eventually, there will come from the workers in the affected industries an irresistible demand to be admitted to deliberations where decisions affecting raw materials are being made. With that slight but far-reaching addition to the statement of joint powers will come an accumulation of responsibility and power for the council which will raise it to a place of determining influence in industry.

The Council Idea in America.—There is the germ of something economically valid and useful for America in the council idea. The national labor unions can do much in effecting local agreements and universalizing wholesome labor standards. The national trade associations can do much to further the prosperity of their industries. There are many problems which the two groups have in common which cannot be satisfactorily solved without joint action.

There was under the exceptional war conditions an unprecedented degree of joint action between employers and employees on a national scale; which, while it perhaps proved nothing for peace times, was indicative of possibilities. In shipping, longshore work, shipbuilding, building, harness and saddlery work, railroading and coal-mining, there were during the war national collective agreements (or understandings which amounted to the same thing) under which it was provided that there should be no interruptions of work until after the action of some agreed arbitrating agency. On the whole these agreements were astonishingly successful in accomplishing their primary purpose of assuring continuous work, and they offered at the same time a convincing object lesson of the sound logic and benefit of occasional national conferences between the leaders of the employers and the workers of an industry.

They were not industrial councils, however, but rather national collective agreements. With the cessation of the war, national agreements were no longer feasible, and the prosperity of the munition industries disappeared. The idea of national joint organization suffered an inevitable setback; but the basic idea of national standing conference withstood the shock, and today the council idea is a fact in the printing trades, the photo-engraving industry, the building trades, and the electrical construction industry.

The International Joint Conference Council.—The International Joint Conference Council of the Commercial and Periodical Branches of the Printing Industry was organized in April, 1919. It is composed of ten members; five chosen by the several employers' associations involved, five chosen by the international unions which are parties to it. Meetings are held on call; a "unanimous vote is necessary to carry any resolution involving the establishment of general principles affecting" any of the parties to the agreement; and all expenses are borne jointly.

The preamble well sets forth the spirit and purpose underlying this cooperative effort:

> Only through joint conferences in the spirit of mutual helpfulness between employees and employers can the foundation be laid for stable and prosperous conditions within the printing industry. To promote the spirit of cooperation and to deal with the problems of the industry in a way to insure the protection of the interests of all concerned, the establishment of an International Joint Conference Council made up of representatives of employers and employees, which shall be thoroughly informed as to conditions and interests of all parties in the industry and in a position to suggest for ratification regulations which shall eventually become the law of the industry, is considered essential.
>
> Compulsory arbitration by law is deemed impracticable as a means of adjusting controversies between employers and employees. Controversies between employers and employees can and should be adjusted through voluntary agreements to refer disputes to boards on conciliation and arbitration composed of representatives of employers and employees in the industry affected. It is in this spirit of arbitration and conciliation that the organization and operation of a Joint International Conference Council for the Printing and Allied Trades is undertaken.

This being the first council to be instituted in America it is interesting to state in full the scope of its activities, which are:

(*a*) Outlining of general trade policies which will secure the greatest degree of cooperation between employer and employee and at the same time insure full protection of the interests of the public.

(*b*) Consideration, reporting, and advising on any legislation affecting the trade.

(*c*) Studying and proposing methods for securing uniform working hours and shop practices.

(*d*) Cooperation with those departments of the government exercising jurisdiction, to maintain such selling prices as will insure a reasonable remuneration to both employers and employees.

(*e*) Consideration and review of the causes of any disputes which arise in the industry. All conciliation and arbitration processes covered in existing agreements must be exhausted before appeals are taken to the International Council. Where no arbitration or trade agreements are in effect, appeals may be taken through regular recognized channels to the International Council.

(*f*) Investigation of the question of apprenticeship conditions; adoption of suitable methods of selection for apprenticeship, and the technical training for apprentices, learners, and journeymen throughout the industry; the improvement of processes, designs, and standards of workmanship; to seek adequate representation on the control and management of all technical institutes; to consider and report upon all improvements of processes, machinery, and organization, and appropriate questions relating to management and the examination of industrial experiments, with special reference to cooperation in carrying new ideas into effect, and full consideration of the employes' point of view in relation thereto. The better utilization of the practical knowledge and experience of employees, with provision for facilities for the full consideration and utilization of acceptable inventions and improvements designed by employers or employees, and for the adequate safeguarding of the rights of the designer of such improvements.

(*g*) Determination of practicability of establishing wage adjustment boards throughout the industry.

(*h*) Consideration of any matters of general interest to the trade, whether industrial, educative, economic, legislative, or hygienic, may be taken up.

The relation of the council to the trade associations, the unions, the local employers and "chapels"—organizations of workers in one shop—is clearly defined and wise provision is made to keep the policy of the central body in complete harmony with the real sentiment of the entire membership of the industry. The specific provisions calculated to do this follow:

(*a*) Each side shall submit its bill of particulars for action in the form of resolutions, which, after having been unanimously passed by the International Council, shall be submitted for ratification to the constituent bodies of the organizations, parties to this agreement. Resolutions passed by the International Council and ratified by the constituent bodies of the organizations shall be binding upon all parties to this agreement and shall become the law of the trade.

(*b*) For the purpose of carrying out the intents and objects for which this International Council is formed, local unions, chapels, and shop committees affiliated with the respective International Unions, parties to this agreement, local allied printing trades councils and local associations of employers in the respective trades dealing with the unions under this agreement shall be recognized as proper and legitimate agencies through which the International Council is to function.

(*c*) It shall be the right of any of these local groups of printing trades, employers, and of local groups of employees to submit to the International Council for consideration and action any proposal of mutual interest, provided, however, such proposals will not violate the legitimate processes and relations in existence between local unions and respective international unions or be in conflict with existing agreements.

(*d*) That all local agreements hereafter entered into between local unions and local employers shall be underwritten and guaranteed by the International Union having jurisdiction over the particular trade making such local agreement. In the event that any local union or local employer violates or disregards the terms of this agreement, the action of such recalcitrant union or employer shall be publicly disavowed by this International Council and the aggrieved parties shall be furnished with an official document to that effect.

The following statement gives a good picture of the various activities which this council has taken up. The results in the field of apprenticeship and in the survey of the health of printers deserve special mention as creative contributions to the industry:

Since its organization the I.J.C.C. has taken action in the interest of standardization and cooperation as follows:

1. The establishment of machinery for informal and frank discussion of problems in which both groups are vitally interested and the maintenance of an industrial good will and respect for one another's opinions which will lay the foundation for materially better industrial relations throughout the industry.

2. Adoption of cardinal principles to guide wage negotiations on the basis of joint investigation and recognition of the facts as to economic conditions in the industry.

3. Provisions looking toward the constructive handling of the apprenticeship problem—such as a standard percentage ratio which appren-

tices' wages should bear to those of journeymen for each year of apprenticeship; the establishment locally of joint apprenticeship committees authorized to enforce apprenticeship contract regulations; methods of making surveys to determine number of apprentices needed and the like.

4. A Standard International Arbitration Agreement form recommended for all contractual negotiations.

5. The agreement through mutual legislative negotiations for the introduction on May 1, 1921, of the 44-hour week, in the union-employing sections of the industry.

6. Standard Cost of Living Readjustment Clause, recommended for local contracts.

7. Establishing joint committees to consider shop practices and the possibilities of greater standardization.[1]

Photo-Engravers' Joint Industrial Council.—Five representatives of the American Photo-Engravers' Association and five from the International Photo-Engravers' Union constitute the industrial council in the photo-engraving industry. This council is formed along similar lines to that in the printing trades and is primarily advisory and recommendatory in function. It meets three times a year and has already worked vigorously on the apprenticeship problem, on cost-finding, on research, on standardizing collective agreements and wages, and on publicity for the industry.

The industry is not, to be sure, a large one in point of number of employees; but the object lesson it supplies of sustained and intelligent planning regarding the vital problems of an industry is highly illuminating. One of the influential union leaders in the industry asserts that:

> The achievements thus far attained indicate clearly that the principles of cooperation are destined to supplant our competitive notions and that new standards are in the making which will give labor eventually an effective voice in the management of industry and thereby more nearly place our industrial relations on a par with our democratic principles and ideas.[2]

[1] Silcox, F. A., Director, Department of Industrial Relations, United Typothetae of America, "Standardization and Cooperation in the Printing Industry," in the *Proc.*, American Academy of Political Science, pp. 59–60, January, 1922.

[2] Woll, Matthew, President, International Photo-Engravers' Union, Chicago, Ill., "Standardization and Cooperation in the Printing Industry," in *Proc.* American Academy of Political Science, p. 45, January, 1922.

The American Construction Council.—The American Construction Council is an interesting and important variant on the council idea. It is a council of about twenty national trade associations and nine of the national labor unions participating in carrying on the building industry. Its work has been of a broad, statesmanlike character, looking to the strengthening of the industry as a whole. The variety of its activities is suggested in the following statement from the Council:

> The formation of a code of ethics acceptable to the industry and to the public.
>
> The gathering of adequate statistics so that the industry may operate intelligently. While there are partial statistics collected by many sources, they have not been brought together and interpreted in the light of all the facts:
>
> A reduction of the national shortage of building mechanics and the establishment of the necessary apprenticeship system.
>
> A national study of building codes and the working out of a program for carrying the recommendations into effect.
>
> A revision of the existing freight rates on construction materials.
>
> A stabilization of the Construction Industry to mitigate the evils of seasonal employment and the trade migration of labor.
>
> The encouragement of local building shows and the adoption of a publicity program capable of giving the public an adequate conception of the magnitude and work of the Construction Industry.

One of the major contributions of this body is the encouraging of local building congresses, which are also representative bodies in local communities composed of delegates from trade associations and labor unions. The Building Congress of New York City is a strong body under which the work of apprenticeship training has been elaborated in a remarkable way. Other definite achievements have been of an educational character in publicity against seasonal construction, against flimsy construction, in favor of good zoning laws, in favor of disseminating knowledge about the volume of construction activity throughout the country.

Another national organization in the construction industry deserves mention here, although it has a narrower function than a council. It is the National Board for Jurisdictional Awards in the Building Industry. This is a representative body chosen to help eliminate jurisdictional conflicts among different unions in the industry.

The Council on Industrial Relations for the Electrical Construction Industry.—One of the most successful experiences with the national industrial council idea has been that in the electrical industry. The Council was organized in 1919 as the joint effort of the National Association of Electrical Contractors and Dealers and the International Brotherhood of Electrical Workers, the first organization numbering about 2400 and the second about 150,000. Although this organization has undertaken to arbitrate a few wage disputes, it disclaims major interest in this activity and insists that where such disputes are referred to it for action a unanimous vote must be secured before a decision is published. There is, of course, no compulsion on the part of the affected local groups to accept the decisions. Experience has shown that the several cases referred to this Council have all been decided by a unanimous vote and have all been accepted by the local bodies. Indeed, the claim is made that disinclination to appear before the Council with insufficient arguments has meant the local settlement of a number of disputes which might otherwise have come to the national body for decision.

A good statement of what this Council is and is not in this industry is contained in the following statement by one of the leading employers:

> It is not an organization possessed of mandatory powers.
>
> It is an agency for promoting harmony, good will, and cooperation.
>
> It is not an organization for unionizing employees where unions do not exist.
>
> It is an agency for the peaceful settlement of industrial disputes.
>
> It is not an organization for the establishment of a national wage.
>
> It is an agency for promoting the unification of the fundamentals of labor agreements.
>
> It is not an organization seeking power in order to dominate.
>
> It is an agency for the promotion of the common welfare by the elimination of strife.
>
> It is not an organization for the primary purpose of settling disputes.
>
> It is an agency for removing the cause of dispute.
>
> It is not an organization for protecting the rights and immunities of labor unions; it is not an organization for protecting the rights and privileges of employers.
>
> It is an organization which designs to do justice between employer and employee, to foster a spirit of good will, to build an industry whose right

hand is direction and whose left hand is execution, where each hand knows the mind that directs the other and hence both are in perfect tune and accord.[1]

The work of this Council has followed notably the forward-looking and positive lines suggested above. Special attention has been paid to the study of the wage problem, including consideration of index numbers of commodity prices. All the evidence points to the fact that this Council has been a force for stability and constructive activity in the industry.

The Results of American Experience.—The value of the operation of industrial councils in the United States may be pointed to with some confidence in the light of the experience above referred to. Although they have not completely kept away from the work of wage arbitration, they have minimized this activity. They have put emphasis on constructive efforts in labor relations which would reduce the possibilities of difficulties getting to the point of an actual strike. This policy of keeping away from arbitration as much as possible is absolutely sound. Only as the council can continue to have the complete confidence of all sides can its work go on effectively.

Again, emphasis should be put upon continuing the method of voting now in use. It should be such as to require a substantial majority of both sides to assent to a proposition before it is adopted. That should not mean that each side votes as a unit; only that there is virtual unanimity as to the wisdom of every policy decided upon.

A further word is necessary as to the scope of the conference dealings. While certain subjects are listed for consideration, it must eventuate in practice that *every subject* connected with the industry may under the council scheme come to the attention of the conference. We have already indicated in several places, for example, that these councils can perform a signal service in the way of regularization of work and in the direction of a sound organization of the demand for the product. One reason why it seems hopeful that industry-wide joint organization can begin to make this stabilization possible is because all the subtle elements of the regularization process may come under the scrutiny of the council. Workers and managers alike, both with a direct

[1] Comstock, L. K., Chairman, Council in Industrial Relations for the Electrical Construction Industry, "Another Year Without an Organized Strike," in *The Electragist*, p. 16, January, 1926.

interest in steady work, can agree together upon a course of action which neither alone could or should attempt. It is just so with all the other matters before the councils. It is because they are joint conferences that there can issue from them proposals and decisions which look in the direction of benefiting the condition of all who are parties to the industry.

Criticisms of the Councils.—The omission of consumers from such councils seems to us a serious defect. We recognize that consumers are in this country poorly organized as consumers, and in the absence of such organization we admit that only less effective expedients are at hand. The immediate expedient of having a number of public representatives is better than nothing. Such delegates (equal in number to the employer and employee members of the council) for example, might be chosen by the Secretaries of Commerce and Labor jointly, or by the two sides in conference, or in whatever way it was felt that a high-minded and enlightened representation of the public and consuming interest would be assured. The principle of the representation of the consumer is sound, and is a needed corrective to the possible conspiracy of employer and employee against the consumer.

The fact that either the trade associations or the labor unions, or both, involved in industry are not strong and inclusive organizations will be pointed to as a limiting factor upon the extension of industrial councils. There is no escape from this conclusion, but there seems a real business value in having this type of organization and integration encouraged and extended as the natural forces of organization on both sides work in this direction. There can be, of course, no forcing of this process. Councils will grow only as fast as they represent a real functional necessity, but they do seem to be a logical elaboration of the representative structure of American economic organization. Bodies of this sort promise to become eventually what may be called the parliaments of their several industries. They can function as the mouthpiece and administrative agency in industries in dealing with governmental bodies and consumers.

It may be objected that the labor unions have this or that shortcoming which makes them difficult to work with. Such objections may be all too true. Yet there is a general law of economy in the growth of institutions which applies here as elsewhere, a law which says that any institutional changes have to

start from the conditions and institutions of the moment, and that society has, in consequence, to commence its transitions with groups as they are rather than with them as it wishes they were. This doubtless will prove substantially true of the labor unions. They have admitted defects, but unless they exhibit a lack of responsiveness to new conditions which has not before been apparent, they are the bodies through which the workers' end of the councils may be counted on to develop.

There is finally an objection that industrial councils may mean the injection of "politics" into industry. This objection is serious enough to require careful consideration. It presumably means that issues will be decided not scientifically on their merits but because of more or less personal and irrelevant influences. It means a fear that red tape, bureaucracy, and delay may enter industry; that the indecision and cumbersomeness of operation which appear to characterize so much governmental action may appear also in business.

Industry must indeed be protected from "politics" so defined. To contemplate industry ridden with this sort of hindrance must seem to every serious adminstrator a veritable nightmare. There is, unquestionably, a real danger that such tendencies will grow in influence. Their growth will not be due to industrial councils or to any other form of cooperative action among the interested parties. It will be due to the absence of such cooperation, due to the difficulties inherent in large-scale management, due to the demand for standardized, cut-and-dried performance which the nepotism of inherited ownership invites as the cloak with which to cover its inefficiency. It will be due, as it already is in the government, to the fact that the directly interested parties are *not* sharing in the determination of working methods and terms of employment, and hence are unable to bring easily to light and have discussed and corrected the evils, stupidities, and inefficiencies of bureaucracy. "Politics" in its bad sense industry has no room for, if it wishes to become truly productive; but politics in the sense of study toward a structure intelligently devised for effective, autonomous control, representation of the actively interested parties and determination of policy on a basis of voluntary consent, industry not only has a place for, but *it cannot get on without.*

It may have seemed to some that the constant use of governmental analogies in discussing industrial questions is somewhat

strained; but it is daily clearer to those who are watching closely the play of economic forces, that the problem of problems today is to find out how our economic and industrial life may be lived in harmony with those principles of personal freedom and autonomy which are our proud, national birthright. Broadly speaking it is true that, until our country is prepared to realize that industry is a proper sphere for democratic government most rapid progress will be blocked, because vision and purpose are inadequate.

Councils in the Civil Service.—The idea of joint standing bodies is obviously applicable to the relations of federal employees with the federal government. In Great Britian, where the extension of the council idea into the civil service has now resulted, it is agreed that the four following important purposes can be served by such a joint council for government employees:

1. Provision of the best means for utilizing the ideas and experience of the staff.
2. Means for securing to the staff a greater share in and responsibility for the determination and observance of the conditions under which their duties are carried out.
3. Consideration of the general principles governing conditions of service, *e.g.*, recruitment, hours, promotion, salary, and superannuation.
4. The encouragement of further education of civil servants and their training in higher administration and business organization.

There is as much reason for this type of organization here as there is in England. The problem of industrial relations with federal employees and, indeed, with state, county, and municipal employees is certainly no easier than the same problem in "private" plants; and it is frequently complicated *in the absence of adequate channels of joint conference* by the unwholesome interference of politicians in the affairs of the public service. This interference while it may effect an immediate settlement of certain issues like pay and hours, does not tend to strengthen the morale of the service, its efficiency, or its good will toward the federal government as employer. It is in truth an injection of "politics" in the invidious sense above referred to.

For these reasons, the proposal of joint councils to supply a place for the joint deliberations of governmental administrators and the personnel whose activities they direct is not to be summarily dismissed. A council here promises exactly what it

promises in other industries. It promises to pave the way for more enlightened personnel policies, for a greater development of interest in the industry by the workers, for a better basis of mutual understanding and confidence than can ever exist so long as no national joint agency is present.

The American experience in this direction is thus far confined to the post-office department, where the experience has been as follows:

Employees of the United States Post-Office Department were organized during 1921–1922 into "welfare" councils—later called "service" councils—for improvement of working conditions and "to bring about closer cooperation and better understanding among the public, the officials, and the employees, thereby making a better and more efficient postal service." This was done as a result of a survey of labor conditions by Dr. Lee K. Frankel, Vice-President of the Metropolitan Life Insurance Company, made at the request of Postmaster General Hays. In 1923 Dr. Frankel was succeeded as director of service relations in the postal department by Henry S. Dennison, President of the Dennison Manufacturing Company.

The post-office councils are significant not only because they illustrate the application of the representation idea to a large government department, but also because they were developed with the active cooperation of several unions of postal employees. These unions were expressly "recognized" in the central organization which was created, a national council consisting of two representatives from each of the following associations, the first four of which are composed of persons in executive and supervisory positions:

National Association of Postmasters (of first- and second-class post offices)

National League of Postmasters (of third- and fourth-class post offices)

National Association of Supervisory Employees

National Council of Supervisory Officials of the Railway Mail Service

National Federation of Post-Office Clerks

United National Association of Post-Office Clerks

National Association of Letter Carriers

National Rural Letter Carriers Association

National Federation of Rural Letter Carriers

The Railway Mail Association

National Association of Post-Office Laborers.

The chairman of this national council is the director of service relations, an appointee of the postmaster general. The executive secretary is elected by the council from its membership.

Upon the basis of model constitutions which were first approved by this national council, there had been established, by November, 1925, 807 local councils in first- and second-class post offices and 330 county councils in offices of the third and fourth classes. There is also a "departmental" council for the 2600 employees at headquarters in Washington, D. C. More than 150,000 employees are directly represented by the local and county councils, while the interests of more than twice that number may be said to find expression through the national council. The unions of postal employees are not directly represented in the local, county, and departmental councils whose members are elected by and from among the several classes of employees whom they are to represent, irrespective of membership in any organization.[1]

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[1] BURTON, E. R., "Employee Representation," pp. 31–32.

CHAPTER XXXIV

THE PURPOSE OF INDUSTRIAL GOVERNMENT

The government of industry presents a problem of economic and human relationships vastly more complex than that found in the field of so-called political government. This affords perhaps the best possible justification for drawing as heavily as this discussion has upon the probable application to industry of the political wisdom and experience of the past. Throughout this volume political truths have been applied to industrial problems wherever comparable situations could be discovered. One important administrative detail after another has been enlarged upon, proposals and procedure estimated in the light of a growing knowledge of the characteristics and potentialities of human nature, and of a growing experience in politics and in personnel management.

In America's political tradition certain aims and purposes have come to have a high value. In this country it is held historically as "self-evident" that "all men are created free and equal" in the sense of having the right to equal opportunity to utilize individual talents; it is held that the right to life, liberty, and the pursuit of happiness is, under ordinary conditions, an inalienable right. Americans cherish a faith on which their political structure is built, that life and happiness are best assured when the basic institutions operate with the affirmative sanction of all the people and for all the people.

There is an unparalleled fineness about America's tenacious hold upon these aims and ideals. That more has not been done to realize them is perhaps cause for discouragement and heart searching. But one conspicuous reason for this has certainly been that as a people Americans have been groping toward practical methods, have been experimenting with and choosing forms which seemed most readily adapted to realizing the democratic spirit; and the end of that period of search and choice is still far in the future.

There is today a pathetic cynicism noticeable throughout society, which is to be partly accounted for by the failure to move faster toward the effective operation of representative political government. It is even more to be explained, it appears, because of the slowness with which efforts are made to apply in industrial life either the spirit or methods which are consistent with our political professions.

The American tradition of democratic control, of essential social activities as public service, of the supreme worthfulness of the individual life, has never been as influential in the economic as in the political realm. The fundamental purposes of industrial activity have been obscured, restricted, and betrayed. Owners and managers often have seemed to be in serious conflict with the rest of the community. This conflict has brought disappointments, fears, and hates.

In America's vast political experiment, doubtful as its concrete results often may seem, certain basic truths have, however, been affirmed, which look in the direction of that release and real liberation of human talents which seem to be the psychological condition of human happiness. To that extent there has been significant progress.

The American faith has affirmed the unique value of personality, the name for that richness and depth in the finer qualities and characteristics of human nature which may be fostered in every life.

The American faith has further affirmed that liberty, equal opportunity, and a fraternal attitude are necessary conditions of that self-development which gives quality and richness to each individual life.

The American faith has professed that in the common life of a democracy there can be no peace or sanity or improvement in the quality of life unless a motive of public service is dominant in the administration of those affairs which affect all the people. At heart Americans are convinced that when there must be organized activity in the community to provide for primary human needs, that organized effort should be in the public interest and constitute, in fact as well as in name, a public service.

The American faith, in short, would affirm that the purpose of the state is to afford a "good life" for all individuals in the state.

In industry there are only scattered attempts to realize this faith. Purposes and faiths seem to be in confusion and at strife. As yet there has been too little recognition of the value of human life as an end in itself, too little liberty and equal status, too little understanding that economic activity really constitutes one of the most significant public services of this generation.

Most fundamental of all, there has been too little understanding that if the purpose of the community's organized life is to minister to the good life of all individuals in it, there must be some attempt to achieve a good life in that major part of the citizen's time which is spent in earning his daily bread.

In short, in the administration of its human affairs industry lacks standards and clearly agreed upon purposes. It lacks agreement as to what all its own turmoil and sweat and anxiety are for. It lacks a criterion in the light of which its own efforts may be evaluated.

The hope for America's industrial future—the hope that it may be productive, joyous, contributive to the life of every member of the community—appears, therefore, to lie in peoples' ability to make industrial practices square with America's historic political faith. The hope lies in the release of positive, creative impulses in all the people *in and through their work;* in a wide recognition that industry can be public service as soon as people generally will acknowledge that it is so.

As soon, then, as agreement can be reached among the interested groups that industry is for service and that this service must be rendered in a way consistent with the growth of the individual personality of every participant, a tremendous step will have been taken toward recognizing purposes which are at once scientific and human. Standards and criteria will begin to emerge, and a sense of direction will be in process of discovery. Study of wise methods will go forward rapidly and fertile results will be forthcoming. The industrial life will have progressed to purposes and methods which it needs to bring it into harmony with the professions of a democratic country.

Such agreement on purpose and methods on any universal scale may be a long way off; but there are encouraging evidences of a new outlook, new purposes, a new determination to harmonize the aims of industrial life with those political aspirations of America which are at bottom lofty and spiritual because they are

democratic and intensely human. Happily, those evidences come not from one group in society but from all.

A prominent engineering consultant, for example, has affirmed that:

> We have proved in many places that the doctrine of service which has been preached in the churches as religion is not only good economics and eminently practical, but because of the increased production of goods obtained by it, promises to lead us safely through the maze of confusion into which we seem to be headed, and to give us that industrial democracy which alone can afford a basis for industrial peace.[1]

A progressive capitalist like the younger Mr. Rockefeller adds his testimony:

> The day has passed when the conception of industry as chiefly a revenue-producing process can be maintained. To cling to such a conception is only to arouse antagonisms and to court trouble. In the light of the present, every thoughtful man must concede that the purpose of industry is quite as much the advancement of social well-being as the accumulation of wealth.[2]

Edward A. Filene, of the William Filene Sons Company, Boston, offers the following evidence:

> The motive with which the employer directs his business and with which the employee works in the last analysis will determine whether there will be industrial war or industrial peace.
>
> Asked recently to prepare an article on "A Simple Code of Business Ethics" as one of a series of studies on the ethics of the several business and professional groups, I ventured to base it on these two brief formulas:
>
> 1. That a business, in order to have the right to succeed, must be of real service to the community.
>
> 2. That real service in business consists in making or selling merchandise of reliable quality for the lowest practicable price, provided that merchandise is made and sold under just conditions.[3]

William H. Green, President of the American Federation of Labor, has stated his conviction along these lines in the following way:

> The relationship of management to labor is changed and is changing. The mental attitude of labor toward industry and industrial processes

[1] GANTT, HENRY L., "Organizing for Work," p. 104.

[2] ROCKEFELLER, J. D., "The Personal Relation in Industry," p. 12.

[3] FILENE, EDWARD A., "Why Men Strike," in "Scientific Management since Taylor," edited by EDWARD EYRE HUNT, p. 247.

is undergoing revision and readjustment. Management is understanding more and more that economies in production can be brought about through the cooperation of labor and the establishment of high standards rather than through the autocratic control and exploitation of labor. Labor is understanding more and more that high wages and tolerable conditions of employment can be brought about through excellency in service, the promotion of efficiency and the elimination of waste. It is becoming more clearly understood that high wages and a high standard of efficiency in industry are correlated and the industry that is best managed, most economically controlled, where workmanship of the highest order under satisfactory conditions is maintained, is the industry that can pay the highest wages.[1]

Utterances like the above are prophetic. They indicate the gradual extension in the minds of influential members in different groups in industry of the notion that industry has some broader purpose than private gain. They emphasize that industry justifies itself by its serviceability. One aspect of this serviceability is its effect on those whom it serves, not alone as consumers, but as participants in the producing process. The real objectives in industry are undoubtedly plural, and to say that industry must be governed increasingly by considerations of performing a service and contributing to the development of the people within it, is really expressing two aspects of the same truth; namely, that industry justifies itself to the extent that it ministers to man as a producer no less than as a consumer. Emphatically, in the purposes and motives which are valid in industry the enrichment of the quality of each individual personality stands high.

It is precisely because the growth of each personality is of preeminent importance that a progressively more democratic method must be employed in the conduct of industrial life. Only under what are known as democratic practices and in a broader democratic political and economic organization can each individual find that degree of self-expression which is the assurance of his opportunity to grow.

The democratic tendency in industry is thus not an end in itself; its working out is the means to the development of the people involved. Democratic organization is in reality the psychological condition of personal liberation.

[1] See "Labor's Ideals Concerning Management," address by WILLIAM GREEN, President, The American Federation of Labor, in *Bull.* of the Taylor Society, p. 245, December, 1925.

It should also be obvious that the democratic tendency is not embodied in any one form or type of structure or institution. It is rather gaining expression wherever opportunity is in fact being given for individual lives to become more rich, varied, interesting, and happier than is otherwise the case. An intelligent application of representative machinery has historically been demonstrated to be the only type of organized activity under which the chance for personal development is assured.

It is in the light of such purposes, objectives, and considerations that industrial practices are increasingly having to be weighed. Certainly, it seems to be true that the methods which are gaining in favor and demonstrating their practical utility are on the whole those which best harmonize the motives of industry, productivity, serviceability, and opportunity for the growth of human personalities.

Professional managers today have an impressive opportunity to institute further experiments which look to reconciling these two vital ends of more and better goods and happier and finer people who shall make and use them. Success in this process promises to be most rapid where the underlying emphasis is upon professional standards of social responsibility and public service.

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APPENDIX A

Topical Outline for Guidance of Students in Visiting Personnel Departments

I. The Status of the Personnel Department:
   A. Is it centralized?
   B. Extent of authority and responsibility.
II. Organization of the Personnel Department:
   A. General features.
      1. Reasons for installing.
      2. Number of years in operation.
      3. Physical layout of offices.
      4. Staff required.
   B. Method of organization:
      1. Title of person in charge.
      2. To whom responsible?
      3. Appropriation.
      4. Staff required.
      5. System of files, records, and forms.
   C. Functions:
      1. Employment:
         (*a*) Plant requirements:
            1. Working force, total, peak, seasonal.
            2. Types of people hired through department.
            3. Sources of supply:
               (*a*) Outside of plant.
               (*b*) Within the plant.
            4. Method of requisition.
         (*b*) Method of selection:
            1. Questions and tests used.
            2. Restrictions, standards, job specifications.
            3. Extent of foreman's or superintendent's responsibility.
            4. Obligation to applicant:
               (*a*) Explanation of plant policies, conditions of work and pay.
               (*b*) Information booklet.
            5. Introduction to the plant:
               (*a*) To other employees.
                  To foreman.
               (*b*) Explanation of job.
         (*c*) Follow up to determine success of selection.
         (*d*) Follow up to determine transfer, promotion, discharge.

2. Factory hygiene:
   (*a*) Fire prevention and protection:
      1. Policies as to:
         (*a*) Reduction of hazards to life.
         (*b*) Cooperation of employees.
         (*c*) Fire drills.
      2. Responsibility for inspection and maintenance.
   (*b*) Accident prevention and protection:
      1. Policies as to mechanical safeguards, first aid, etc.
      2. Responsibility for inspection and maintenance.
      3. Records of causes.
      4. Cooperation of employees through:
         (*a*) Education, suggestion systems, committees.
   (*c*) Maintenance of plant:
      1. Responsibility for periodic check up, and recommendations for improvement in:
         (*a*) Working hazards:
            1. Occupational.
            2. Ventilation and heating.
            3. Removal of air impurities.
            4. Lighting.
            5. Noise and vibration.
            6. Postures as adapted to work.
            7. Rest periods.
            8. Purity of drinking water.
            9. Hot and sufficient food.
         (*b*) Factory housekeeping: Windows, washrooms, floors, bubblers, etc.
   (*d*) Medical care:
      1. Who is responsible for, what facilities are there, and who pays the cost of?
         (*a*) First aid.
         (*b*) Nurses, doctors, hospital, dental department.
         (*c*) House visits.
         (*d*) Fatigue study.
         (*e*) General health educational policy.
3. Training:
   (*a*) Job instruction:
      1. For workers.
      2. For foremen.
      3. Methods of.
   (*b*) Policies in regard to:
      1. Technical training for advancement.
      2. Education in maintaining factory standards.
      3. English classes.
      4. General educational features.
      5. Responsibility for conducting above.
   (*c*) Transfer policy.

(*d*) Promotion policy.
(*e*) Suggestion system.

4. Miscellaneous service functions:
   (*a*) Physical:
      1. Lunch rooms—financial policy, extent of use.
      2. Cooperative purchasing arrangements.
      3. Transportation facilities.
      4. Housing schemes.
   (*b*) Educational:
      1. Libraries, lectures, movies.
      2. Plant paper.
   (*c*) Recreational:
      1. Variety; facilities.
      2. Method of organization and control.
   (*d*) Benefit associations:
      1. Savings societies.
         Purpose, method of operation, responsibility for funds.
      2. Insurance associations:
         (*a*) Type.
         (*b*) Methods of operation.
         (*c*) Qualifications for membership.
5. Maintenance of working force and amicable joint relations:
   (*a*) Problems where mutual understanding, cooperation, or careful adjustment are necessary:
      1. Promotion.
      2. Transfer.
      3. Grievance.
      4. Discipline or shop control.
      5. Discharge.
      6. Interview of leavers.
      7. Adjusting pay errors.
      8. Determination of policies on working conditions:
         (*a*) Working methods.
         (*b*) Quantity and quality of output.
         (*c*) Hours of work.
         (*d*) Rate of pay.
   (*b*) Methods for controlling these problems:
      1. Through personnel manager:
         (*a*) Is there stated procedure for handling complaints and grievances?
      2. Employees' committees:
         (*a*) Qualification for membership.
         (*b*) Machinery for representation and election.
         (*c*) Method of organization.
         (*d*) Problems handled.
      3. Collective bargaining with organized labor if there are agreements:
         (*a*) What are their terms?

(*b*) Are they satisfactory?

4. Plant history on strikes and lockouts:

6. Research:
   (*a*) Responsibility for gathering and classifying information as to:
      1. Jobs offered, types and specifications.
      2. Workers needed, types and qualifications.
      3. Effect of job on worker.
      4. Tardiness and absenteeism.
      5. Labor turnover:
         (*a*) How figured.
         (*b*) Amount of.
         (*c*) Causes of.
         (*d*) Cost of.
   (*b*) Labor audit of plant.
   (*c*) Method of learning of new developments in whole personnel field.
7. Relation of department to other staff departments:
   (*a*) How are personnel policies adopted?
   (*b*) Are production and sales policies adopted with knowledge of personnel department?
   (*c*) How are personnel policies put into effect with foremen?
8. Relation of department to outside agencies:
   (*a*) Responsibility and method of keeping in touch with:
      1. Legislation.
      2. Court decisions.
   (*b*) Policy as to contacts and cooperation with:
      1. Government bodies, health departments, employment service, schools, libraries, etc.
      2. Civic agencies.
      3. Business associations.
      4. Organized labor.

D. Conclusion:
   (*a*) What do you consider the main justification for your department?
   (*b*) What do you consider its limitations?

APPENDIX B

Current Sources of Personnel Information[1]

Academy of Political Science (*Proc.*), Kent Hall, Columbia University, New York, N. Y.

American Labor Legislation *Review*, 131 East Twenty-third Street, New York, N. Y.

The American Management Review, American Management Association, 20 Vesey Street, New York, N. Y.

The Annals, American Academy of Political and Social Science, Philadelphia, Pa.

Harvard Business Review, A. W. Shaw Company, Chicago, Ill.

The Journal of Applied Psychology, Worcester, Mass.

Journal of Industrial Hygiene, The Macmillan Company, New York, N. Y.

Journal of Personnel Research, Williams and Wilkins, Baltimore, Md.

Law and Labor, League for Industrial Rights, 165 Broadway, New York, N. Y.

Metropolitan Life Insurance Company Policy Holders' Service Bureau *Bulletins*, 1 Madison Avenue, New York, N. Y.

Monthly Labor Review, U. S. Department of Labor, Washington, D. C.

National Industrial Conference Board, Research *Reports* and *Special Reports*, 247 Park Avenue, New York, N. Y.

National Safety Council, Magazine and Bulletins, Chicago, Ill.

Russell Sage Foundation, Industrial Relations Series, 130 East Twenty-second Street, New York, N. Y.

Taylor Society *Bulletin*, The Taylor Society, 29 West Thirty-ninth Street, New York, N. Y.

Society of Industrial Engineers *Bulletin*, 608 South Dearborn Street, Chicago, Ill.

The Survey, 112 East Nineteenth Street, New York, N. Y.

Commercial Periodicals

Factory, A. W. Shaw Company, Chicago, Ill.

The *Foremen's Magazine*, Foremen's Publishing Company, Dayton, Ohio.

Industrial Management, Engineering Magazine Company, 116 West Thirty-second Street, New York, N. Y.

Industrial Psychology, Hamilton, N. Y.

Manufacturing Industries, Ronald Press Company, 15 East Twenty-sixth Street, New York, N. Y.

System, A. W. Shaw Company, Chicago, Ill.

[1] Note: The above list is *not* aimed to be exhaustive, nor does it include information on surveys or news letters which are offered for sale on a commercial basis.

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Zeiss Optical Works, premium to invested capital, 342 *note*